Mirroring Risk: The Vietnam War (Tet Offensive) and the Iranian Revolution

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Abstract

Mirroring risk has reportedly contributed to a host of intelligence failures, from the sinking of the Lusitania in 1915 to the Russian invasion of Ukraine in 2022. Jonathan Renshon's (2009) abstract model, which incorporates the decision frame and risk profile of the adversary, remains the only attempt to codify the phenomenon. This thesis will derive criteria for mirroring risk based on Renshon's (2009) model, before testing that criteria in two further case studies; the Vietnam War (Tet Offensive) and the 1979 Iranian Revolution.

These case studies represent the first application beyond the Cuban missile crisis and the US Intelligence Community (IC). This is also the first robust study of mirroring risk to incorporate assessments of an ally and the first in which intelligence agencies are tasked with assessing events transpiring in the public domain. Evidence of mirroring risk is exhibited by American analysts prior to the Tet Offensive and by British and American analysts during the Iranian Revolution. This finding validates Renshon's (2009) model, with implications for how scholars and practitioners understand intelligence failure.

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Abbreviations

ACH	Analysis of Competing Hypotheses
ANSF	Afghan National Security Forces
ARVN	Army of the Republic of Vietnam
BJP	Bharatiya Janata Party
CIA	Central Intelligence Agency
COMINT	Communications Intelligence
DCI	Director of Central Intelligence
DI	Defence Intelligence
DIA	Defense Intelligence Agency
DMA	Defense Mapping Agency
DNI	Director of National Intelligence
DOD	Department of Defense
FBI	Federal Bureau of Investigation
FCDO	Foreign, Commonwealth and Development Office
FCO	Foreign and Commonwealth Office
FOSIC	Fleet Ocean Surveillance Information Center
GEOINT	Geospatial Intelligence
HUMINT	Human Intelligence
IC	Intelligence Community
ICBM	Intercontinental Ballistic Missile
IDF	Israel Defense Forces
IDI	Israel Defense Intelligence
IMINT	Imagery Intelligence
INR	Bureau of Intelligence and Research
J2	Joint Intelligence
JIC	Joint Intelligence Committee
MAAG	Military Assistance Advisory Group
MACV	Military Assistance Command, Vietnam
MAD	Mutual Assured Destruction
MDCOA	Most Dangerous Course of Action
METF	Middle East Task Force
MLCOA	Most Likely Course of Action
MoD	Ministry of Defence
NFAC	National Foreign Assessment Center

NGA	National Geospatial-Intelligence Agency
NID	National Intelligence Digest
NIE	National Intelligence Estimate
NIMA	National Imagery and Mapping Agency
NPIC	National Photographic Interpretation Center
NSA	National Security Agency
NSC	National Security Council
ODNI	Office of the Director of National Intelligence
OPEC	Organisation of the Petroleum Exporting Countries
OSINT	Open-Source Intelligence
OSS	Office of Strategic Services
OSUS	Ocean Surveillance Satellites
PDB	President's Daily Brief
SIGAR	Special Inspector General for Afghanistan Reconstruction
SITREP	Situation Report
UKIC	United Kingdom Intelligence Community
VC	Viet Cong
WMD	Weapon of Mass Destruction

Introduction

The creditable work of the UK Intelligence Community (UKIC) prior to the 2022 Russian invasion of Ukraine is reflected both in the weight of the deterrence effort and the efficacy of the counter-disinformation campaign (FCDO 2021, Dylan and Maguire 2022). However, some analysts discounted or dismissed the possibility of an invasion, suggesting that Russia would only invade if capable of a swift victory (Renz 2024: 219). These are manifestations of "mirroring risk", which is the "tendency to assume that an adversary will act a certain way because 'that is what I would do'" (Renshon 2009: 322).

The volume of literature on intelligence failures that reference mirroring risk is reflected in a breadth of interpretations of the term. Mirroring risk is often discussed interchangeably with "mirror-imaging" (Watanabe 1997), "ethnocentrism" (Johnston 2005) and the "rational actor model" (Chabska 2022). This conflation presents a challenge for practitioners attempting to understand and mitigate the issue of mirroring risk. The only extant model is that presented by Jonathan Renshon (2009), which addresses the decision frame and risk profile of the adversary and which he applies to the Cuban missile crisis.

The primary research question that this thesis will answer is "how does mirroring risk contribute to intelligence failure?" It will make several empirical and theoretical contributions to the literature on intelligence failure and mirroring risk. Firstly, criteria for mirroring risk are derived based on Renshon's (2009) model. Secondly, the criteria are tested in two further case studies; the Vietnam War (Tet Offensive) and the 1979 Iranian Revolution.

These case studies are both archetypal intelligence failures, offering a wealth of declassified reporting. The failures are also protracted and, especially in the case of the Iranian Revolution, transpired in the public domain. These conditions facilitate a suitable initial test of Renshon's (2009) model, beyond the Cuban missile crisis. Incorporating British intelligence assessments, within the Iranian Revolution case, further challenges its applicability.

More than 1,300 intelligence reports and related documents were assessed in this study for evidence of mirroring risk. The criteria derived in this thesis are satisfied by reports produced by American analysts prior to the Tet Offensive and by British and American analysts during the Iranian Revolution. This finding demonstrates the validity and robustness of Renshon's (2009) model and the corresponding criteria.

In addition to testing the empirical manifestation of mirroring risk, the thesis discusses the theoretical application of the phenomenon within Heuer's (1999) framework of intelligence failure. Heuer (1999: 111) identifies four key components of intelligence failure; cognitive, cultural, organisational and political bias. Evidence from both case studies indicates that mirroring risk is related to, and enabled by, all four of these biases. That said, it has the fundamental profile of a cognitive bias, albeit with a cultural component. Understanding mirroring risk within Heuer's framework will allow practitioners to adopt the necessary tools and processes to combat it.

The thesis is structured as follows. The Literature Review provides a characterisation of intelligence, before discussing mirroring risk's place within the framework of intelligence failure. The Methodology section then describes how Renshon's (2009) abstract model is codified to form the criteria employed in this thesis. This is followed by a review of the case selection process. The following two chapters discuss the respective cases in detail, breaking down the data sets and assessing all reports of note. The thesis concludes by considering the broader implications of the findings, for both scholars and practitioners.

Literature Review

On Intelligence

To understand mirroring risk as a component of intelligence failure, intelligence must be characterised according to its epistemology, function and process. Martha Whitesmith (2020: 22) argues that the "essential nature of intelligence is the covert pursuit of justified beliefs", but acknowledges this is one of many definitions. Two primary factors explain the failure of a single definition of intelligence to take hold. Firstly, intelligence is too broad to suit an extensional definition, one which lists all constituent parts. Secondly, intensional definitions, those that "express the essential nature of a term", are often criticised if the specified conditions are not unique to intelligence (Whitesmith 2020: 23).

Key components of intelligence are frequently excluded from taxonomies which strive for uniqueness. Breakspear (2013: 678) states that the function of intelligence is to "forecast change in time to do something about it". This interpretation does not account for "basic intelligence", a "structured compilation of geographic, demographic, social, military and political data", which is notably collected on allies as well as adversaries (Marrin 2011: 12). Abram Shulsky, writing in the CIA's then-classified journal, *Studies in Intelligence*, as R.A. Random (1956: 76), defines intelligence as the "collection and processing of information on foreign countries to aid in formulating and implementing foreign policy". Shulsky's conception of intelligence excludes domestic intelligence activity, such as that carried out by MI5 and elements of the Police Service in the UK. Implicit in that definition, and explicit in Warner's (2002: 21), is the idea that intelligence is strictly a "state activity". The recognition of non-state actors, increasingly "treated as intelligence actors in their own right", necessitates a broadening of the term (Strachan-Morris 2019: 980).

Whitesmith's (2020) aforementioned definition of intelligence is sufficiently broad and will therefore be employed in this thesis. Sims (2010: 393) attempts to augment that definition by contending that the purpose of pursuing justified beliefs "is to gain competitive advantages over adversaries". Whitesmith (2020: 34) argues that "information can be sought in an act of intelligence to fulfil knowledge gaps, without necessarily being required to fulfil the goal of providing a competitive advantage". Having established that Whitesmith's (2020) definition is suitably succinct, it remains to challenge the concept of secrecy and the epistemological foundations of a justified belief.

There are two challenges to associating secrecy with intelligence. The first, made by Turner (2005), is that secrecy is not a necessary condition of intelligence as it does not delineate intelligence work

from other official or governmental functions. However, Turner (2005: 6) acknowledges that "there are different gradations of protection, of secrecy", and it is widely accepted that the intelligence function is one that is carried out in secret (Warner 2002). Use of the term "secret" to define intelligence activity is also challenged on a technical basis. This is the result of *Secret* being one of several classifications of protectively marked material currently in use across the Five Eyes IC. Those who dispute the term "secret" being applied to all forms of intelligence would note the various intelligence products, methods and processes that are classified below the level of *Secret*, including a significant proportion of Open-Source Intelligence (OSINT). Whitesmith's (2020: 22) use of "covert" circumvents this issue whilst preserving the spirit of the intelligence function.

The final aspect of Whitesmith's (2020:22) definition is the idea of a "justified belief". Intelligence is defined as the "pursuit of justified beliefs", rather than the pursuit of knowledge, because the epistemological threshold of the latter is too restrictive (Whitesmith 2020: 22). Intelligence is a domain characterised by incomplete information ("known unknowns"), where analysts make predictive assessments about future courses of action (US Department of Defense 2002). Whitesmith (2022) presents three epistemological foundations for the concept of a justified belief; evidentialism, indefeasibilism and process reliabilism. These foundations are compatible with both deductive and inductive reasoning. Evidentialism argues that justified beliefs "must have sufficient evidence to support the truth of the belief" (Whitesmith 2022: 839). Beliefs can also be justified according to indefeasibilism, if they "cannot be defeated by counter-argument"; and process reliabilism, if a "reliable cognitive process is followed" (Whitesmith 2022: 839). This epistemological basis addresses the three key areas of the intelligence cycle; collection, analysis and processing (Johnson 1986).

Whitesmith (2020: 97) contends that the intelligence function is subject to a "higher degree of epistemic complexity". This is due to three factors; "(1) establishing the epistemic quality of available information; (2) establishing epistemic justification where available information is not comprehensive; and (3) drawing in part or in total from information collected by an epistemically unreliable method" (Whitesmith 2020: 97). The first factor is the result of deception and counter-intelligence (Handel 1982). The second factor illustrates the challenge in forming an indefeasibilist critique with incomplete information. The third factor, pertaining to the intelligence process, requires the idea of a "reliable method" to be defined (Whitesmith 2022: 838). Whitesmith (2020: 47) presents an alternative definition of reliabilism, whereby a belief is justified if it has a "high objective probability of being true: a belief is justified if the odds are in its favour". Whitesmith (2020) refers to Pascal's wager to distinguish those objective odds from the proposition faced by the French philosopher. Pascal's wager posits that it is optimal to believe in God, given the potentially infinite

gains of that belief, provided that the probability that God exists is non-zero (Hacking 1972). The analogy of Pascal's wager differentiates the intelligence function from the broader intelligence process.

Having disputed the propositions that intelligence is tantamount to forecasting, that foreign entities are the only targets of intelligence, and that intelligence is only conducted by states, Whitesmith (2020) rejects one further definition. That is the contention that the sole purpose of intelligence is to influence policy-makers. This argument is rejected on similar grounds to those above; namely that intelligence can be carried out by non-state actors or individuals, and that basic intelligence is not necessarily collected to influence policy-makers. However, although this micro-level conception of intelligence can be dismissed, the macro-level question of the influence of the intelligence function remains one of the most contentious and long-standing debates in the field.

The relationship between producers and consumers of intelligence is still referred to as the "Kent-Kendall debate", in honour of Willmoore Kendall's (1949) review of Sherman Kent's (1949) seminal book, *Strategic Intelligence for American World Policy* (Davis 1992). Kent and Kendall influenced the development of the US IC in the years following the Second World War and both men acknowledge the difficulty in establishing an effective producer-consumer dynamic. As Kent (1949: 180) writes, "intelligence must be close enough to policy, plans, and operations to have the greatest amount of guidance, and must not be so close that it loses its objectivity and integrity of judgement".

Kent's solution to this dilemma is to propose a clear delineation between intelligence analysts, both civilian and military, and those working in the policy, planning and operational domains. Intelligence is relegated to a "service function" and the analysts' "job is to see that the doers are generally well informed" (Kent 1949: 182). Kendall reverses the direction of this relationship. Jack Davis (1992: 95) writes that "Kendall sees the intelligence function as helping the policymakers 'influence' the course of events by helping them understand the operative factors on which the US can have an impact". Kent's conception of intelligence stops short of assessing the impact of policy or strategy on an adversary; a restriction intended to safeguard analysts from political influence. Kendall (1949: 548) argues that this places foreign affairs "in the hands of a distinct group of officials whose 'research' must stop short at the 3-mile limit even when the thread they are following runs right across it".

Having established a definition for the intelligence function and explored the enduring debate concerning producers and consumers of intelligence, the final part of this opening section will discuss the nature of intelligence analysis. Richards Heuer (1999), writing in *Psychology of Intelligence Analysis*, relates the process to chess. Heuer (1999: 71) argues that it is "difficult to see

all the pieces on the board as your opponent sees them, and to anticipate how your opponent will react to your move". Robert Jervis (2019) argues that poker, being a game of incomplete information, is a superior metaphor. Better still, writes Jervis (2019: 175), is "Rashomon, the Japanese fable in which each participant sees the interaction and the others in very different ways".

Moving beyond metaphor, Marrin (2012) discusses whether intelligence analysis can be considered an art or a science. Marrin (2012) notes pertinent aspects of the scientific method, such as the collection and evaluation of data and the formation and testing of hypotheses, but acknowledges that circumstances cannot be controlled and events are not replicable. Folker (2000: 13) states that intelligence analysis "may best be considered a combination of both intuitive and scientific method". Heuer (2009) dismisses the discussion as "meaningless" on the grounds that the "range of activities that fall under the rubric of intelligence analysis spans the entire range of human cognition".

There is a key area in which the intelligence function differs from a purely academic exercise. Namely, analysis can shape the course of events. Marrin (2003: 622) provides an example of this causal dynamic, whereby the "CIA predicts that a terrorist bombing is imminent and policymakers implement security procedures based on CIA warnings, and the terrorists are deterred due to the increased security measures". This aspect must be considered when evaluating the accuracy of predictive assessment.

Intelligence can also influence the course of events in less direct ways. Jervis (2019: 166) discusses General Norman Schwarzkopf's demand, during the air campaign phase of the first Gulf War, that the CIA "get out of this business", following damage estimates that contradicted Air Force reports. According to Jervis (2019: 166), Schwarzkopf's "reasoning was not that the CIA was wrong but that these estimates reduced the confidence of the men and women in uniform on which success depended". Ukrainian President Volodymyr Zelenskyy expressed similar concerns regarding reports of Russia's military build-up prior to the 2022 invasion of Ukraine. "'If we sow chaos among people before the invasion', Zelensky recalled, 'the Russians will devour us'" (Gustafson et al. 2024: 405).

The examples above are not intelligence failures, as they concern the consequences of "finished" intelligence rather than aspects of the intelligence process itself. Nevertheless, they illustrate how incentives faced by analysts could lead to politicised or biased assessments. Chang and Tetlock (2016: 9) explore this idea of the "right mistake", akin to that made by Pascal in his eponymous wager, whereby analysts confuse "probability judgments of making an error with our (dis)utility judgments of the error". As Mellers et al. (2015: 12) explain, analysts are "likelier to say 'signal' when

the costs of a miss are high, and they are likelier to say 'noise' when the costs of a false alarm are high". The next section of this review will provide a framework to understand failures of intelligence.

On Intelligence Failure

If "intelligence analysis spans the entire range of human cognition", then intelligence failure must be similarly broadly defined (Heuer 2009). Jervis (2019) discusses two conceptions of intelligence failure, emphasising the distinction between process and outcome. The first is the extent to which analysis or predictive assessment can be judged to be false, based on subsequent events. Jervis (2019: 2) describes this as the "most important and least interesting sense of the term", due to the simple requirement of comparing the intelligence assessments with how events actually played out. Jervis' (2019: 3) deeper notion of intelligence failure is "whether the analysts made good use of the information at hand". This definition bounds the concept of intelligence failure, accounting for intelligence gaps and treating collection as exogenous. It is equally important to note that intelligence failure is not determined by the political or operational implications of the analysis. Erroneous assessments which produce favourable outcomes, such as a mutual reduction in hostilities following reports which underestimate adversary capabilities, must nevertheless be regarded as instances of intelligence failure.

Jervis (2019) concludes his discussion of what constitutes intelligence failure with an exhausting, if not exhaustive, list of factors which can contribute to it. Analysts may "not formulate testable hypotheses and so often rely on beliefs that cannot be falsified, leave crucial assumptions unexplicated and unexamined, fail to ask what evidence should be present if their arguments are correct, ignore the diagnostic value of absent evidence, and fail to employ the comparative method and so assert causation without looking at instances in which the supposed causal factor was absent as well as at cases in which it is present" (Jervis 2019: 3). This section of the review will explain how failures of intelligence can be categorised, so that the factors above, alongside many others, may be understood.

Heuer was the first to present the four categories of intelligence failure to be discussed in this thesis. Heuer (1999: 111) stated that "it is important to distinguish cognitive biases from other forms of bias, such as cultural bias, organizational bias, or bias that results from one's own self-interest". Roger George (2010: 297) amends the latter category, "for simplicity's sake"; offering the following "four major forms of bias: cognitive, organizational, cultural and political". Despite this presentational amendment, these categories will be referred to as Heuer's framework throughout this thesis. This is both to reflect his original argument and to distinguish George's (2010) definitions from the following

discussion, which will present and bound each category in turn before explaining why Heuer's framework offers the best understanding of intelligence failure.

On Intelligence Failure: Cognitive Bias

Heuer (1999: 111) describes cognitive biases as "simplifying strategies and rules of thumb to ease the burden of mentally processing information to make judgements and decisions". Whitesmith (2020: 2) states that "cognitive biases affect both of the central stages of analysis: the formation of initial beliefs, and the adjustment of beliefs during the processing of information". Whitesmith (2020: 13) discusses confirmation bias and "serial position effects", as two phenomena that impact belief formation and adjustment. Confirmation bias has two facets; the tendency to seek information that confirms pre-existing beliefs and the tendency to interpret information, even that which is neutral or contradictory, as supporting those beliefs. "Serial position effects" describe how judgements are influenced by the sequence in which information is collected or processed (Whitesmith 2020: 13). Among those effects are "primacy" and "recency", which refer to the disproportionate weighting assigned to information processed at the very start and very end of the analytical stage (Whitesmith 2020: 14).

The title of Kahneman and Tversky's (1974) pathbreaking work on cognitive biases, *Judgement under Uncertainty*, illustrates the application to the intelligence function. As Heuer (1999: 15) notes, the "intelligence analyst is among the first to look at new problems at an early stage when the evidence is very fuzzy indeed". Experience may help the analysts, but it can also compound these issues. Davis (2014: 124) discusses the "paradox of expertise", whereby senior analysts subconsciously "discount the likelihood of discontinuity" to preserve their understanding of the dominant paradigm. Davis (2014: 125) refers to intelligence failures, including the Yom Kippur War and the fall of the Berlin Wall, characterised by the "nearly perfect correlation between the depth of … expertise and the time it took to see what was happening".

Heuristics and biases are formed in-part by experience. Jervis (2019) refers to the US IC's underestimation of Saddam Hussein's WMD activities in the first Gulf War in order to explain how this can produce a cycle of overcorrection. Analysts "will be sure not to make the same mistake again but are likely to commit the opposite one" (Jervis 2019: 138). Attempting to learn from experiences, especially those of intelligence failure, can present further issues if analysts, and those who direct the collection effort, restrict their focus to "threats that fit the previous experience and patterns" (Hatlebrekke and Smith 2010: 153). Analysts may also anchor their assessments to the prevailing views of the IC, producing an "over-reliance on previously reported 'finished' intelligence"

(Richards 2010: 113). This heuristic is particularly pertinent to the domain of intelligence due to how information is handled. Ricks (2007: 51) quotes a senior military intelligence official, discussing then-Vice-President Dick Cheney, as follows; "with all the compartmentalization, there's a good chance that a guy that senior has seen stuff you haven't".

On Intelligence Failure: Cultural Bias

George (2010: 298) states that cultural bias is "often accompanying well-known forms of cognitive bias". Towner and Cozine (2023: 2) explain that the interaction between cognitive and cultural bias can "create opportunities for analysts to seek information that confirms their personal experience while avoiding cultural data and cultural factors they are unfamiliar with". In his ethnographic study of the US IC, anthropologist Rob Johnston (2005: 75) describes this phenomenon as "ethnocentrism"; "projecting one's own cognition and norms onto others". Of the four categories of intelligence failure within Heuer's framework, cultural bias would appear to be the most natural home for the concept of mirroring risk. Renshon (2009) defines mirroring risk as a component of mirror-imaging; "projecting your thought process or value system onto someone else" (Watanabe 1997: 7). George's (2010) understanding of cultural bias is synonymous with both ethnocentrism and mirror-imaging. After discussing Heuer's final two categories of intelligence failure, this review will dispute that conflation by demonstrating how aspects of mirroring risk are associated with each of the four categories.

McFate (2006: 16) illustrates the breadth of cultural bias within intelligence analysis by referring to the 9/11 Commission, which "identified a 'failure of imagination' as a major contributing factor in the terrorist attacks". The Commission reported that "'cultural asymmetry' blinded senior policy makers and intelligence officials to the nature and the gravity of the threat" (McFate 2006: 16). Finally, with respect to cultural bias, it is important to distinguish the term from issues concerning organisational cultures. Richards (2010: 45) discusses "cultural issues", both within and between intelligence organisations, including rivalries regarding access to data and sources. Under Heuer's taxonomy of intelligence failure, these are examples of organisational bias.

On Intelligence Failure: Organisational Bias

Organisational bias is present whenever the analytical process is influenced by internal factors pertaining to the intelligence organisation or external factors concerning partner or rival organisations. George (2010: 297) argues that the primary internal element is how the process of "coordination" is implemented. Coordination refers to a practice whereby draft reports are

circulated to fellow analysts prior to release. These analysts typically have a degree of subject matter expertise, or a familiarity with the methods employed, but are not part of the formal reviewing chain. In theory, coordination offers diversity of thought and a path to mitigate the "paradox of expertise" (Davis 2014: 124). However, George (2010: 300) contends that, in practice, this process serves to "tamp down deviant views that challenge the office's long held views".

Bias can also be inculcated via organisational norms. Davis (2014: 129) states that these norms can include the "promotion of overconfidence ('making the call')" over reports that consider alternative hypotheses or present a more nuanced view. The analytical pressure towards conformity, establishing and upholding a singular unambiguous stance across the organisation, is accentuated by pressure to compete with fellow intelligence organisations. George (2010: 301) quotes former Deputy Director of National Intelligence for Analysis, Thomas Fingar, as follows; "Imagine if Harvard or Princeton had a single view on an issue; that just would not happen". Helen Fessenden (2005) writes that Fingar's organisation, the Office of the Director of National Intelligence (ODNI), was established following the 2004 Intelligence Reform and Terrorism Prevention Act, in order to address organisational bias.

Prior to the appointment of a Director of National Intelligence (DNI), the nominal head of the US IC also served as Director of the CIA. As Fessenden (2005: 107) writes, "this 'dual hatting' meant that no one was really in charge of the intelligence community". Jervis (2019: 142) discusses the consequences of this organisational structure with reference to the question of "whether Iraq's purchase of aluminium tubes showed that it was reconstituting its nuclear program". On gaining access to the tubes, the lead CIA analyst immediately "concluded that they were designed for a centrifuge" (Jervis 2019: 143). This hasty assessment reached the President "before other agencies had a chance to analyze the material and reach a different verdict" (Jervis 2019: 143). Despite his responsibility to arbitrate differences between the agencies, then-Director of Central Intelligence (DCI) George Tenet "did not even know that there was a dispute until the NIE [National Intelligence Estimate] was being written" (Jervis 2019: 144). This desire to advance the position of an organisation is often mistaken for politicisation.

<u>On Intelligence Failure: Political Bias</u>

The politicisation of intelligence can take place at various levels. It is important to differentiate politicisation within the intelligence process, as the aspect that "intelligence personnel directly influence", from the manipulation, or selective use, of finished intelligence (Gentry 2018: 648). Marrin (2013: 39) presents five distinct types of political bias; "direct pressure from senior policy

officials", "a 'house line' on a particular subject", "cherry picking", "asking questions repeatedly" of analysts and a "shared 'mindset'" between analysts and policy officials. Depending on the nature of the shared mindset, whereby "intelligence and policy share strong presumptions", that aspect may be better described as either cultural or organisational bias (Marrin 2013: 39). Jervis (2019) discusses the difficulty in identifying the type of politicisation characterised by policy officials asking questions of the analysts, as this scrutiny could be mistaken for good practice. Jervis (2019) also disputes cherry picking as a manifestation of political bias. Jervis' (2019: 174) argument is that "it is only when intelligence does not yield that policy-makers may have to misreport what it is saying".

The remaining two aspects of politicisation presented by Marrin (2013) are also included in Eisenfeld's (2017: 83) taxonomy, as "top-down" and "bottom-up" bias, respectively. Eisenfeld (2017: 83) states that top-down politicisation occurs when "policymakers are seen to dictate intelligence conclusions". Bottom-up, or "soft politicisation", describes the incentive to tailor assessments in support of customers' political requirements (Rovner 2013: 55). Soft politicisation can take many forms, including appointing or promoting analysts based on their views, or limiting the resources assigned to less agreeable departments (Jervis 2019). Rovner (2013: 55) asserts that soft politicisation "does not mean outright pandering" and that it can also be characterised by the conclusions that are *not* drawn and the questions that are *not* asked. This "politicisation by omission" is typically covert, but Gentry (2018: 661) acknowledges the overt directive issued by Bill Clinton in 1994, banning the use of the term "genocide" with respect to Rwanda. This directive was issued to forestall political pressure to intervene, following the "Black Hawk Down" incident in Somalia the previous year (Gentry 2018: 661).

Eisenfeld (2017: 83) presents two additional facets of politicisation; "bi-directional" and "inside-out", although both lack adequate definitions and supporting examples. Similarly, Bar-Joseph (2013: 358) claims that all forms of politicisation must "involve an attempt to influence public opinion". However, most instances of both hard and soft politicisation have no bearing on public opinion, so this argument can be dismissed.

<u>On Intelligence Failure: Alternative Frameworks</u>

The final part of this section on intelligence failure will discuss alternatives to Heuer's framework. Richards (2010: 28) defines two categories of intelligence failure; the "cognitive and analytical processes undertaken by the intelligence analysts" and the "organizational structures and process-flows of the intelligence machinery itself". Crucially, Richards' (2010) model fails to address cultural or political bias. That same omission can be levelled at Whitesmith (2020: 3), who presents three

categories of intelligence failure; “cognitive”, “system” and “action”. Whitesmith (2020: 3) defines “system-failure” as technical, organisational or structural barriers to intelligence collection or dissemination. “Action-failure” encompasses the misinterpretation or misuse of finished intelligence and so does not apply to the intelligence function directly (Whitesmith 2020: 4).

Hatlebrekke and Smith (2010: 151) state that there are “four primary causes of intelligence failure: subordination of intelligence to policy; unavailability of information when and where needed; received opinion that governs a strong belief in ‘conventional wisdom’ without sufficient evidence; and mirror imaging in which unfamiliar situations are judged on the basis of familiar ones”. The first cause of failure is akin to Heuer’s (1999) politicisation, but the remaining aspects of the framework may be criticised. The latter two causes are not sufficiently distinct; “belief in ‘conventional wisdom’” is often synonymous with judging the unfamiliar by the familiar (Hatlebrekke and Smith 2010: 151). The second cause, “unavailability of information when and where needed”, may be generously understood as an alternative framing of Whitesmith’s (2020: 3) “system-failure” (Hatlebrekke and Smith 2010: 151). However, it could also be interpreted as failing to bound intelligence failure according to the information available at the time. Jervis (2019: 2) entertains the distinction between the technical limits of intelligence collection and “what might have been within reach had different decisions been made earlier”; for instance, “had the United States made the recruitment of sources a priority within Iraq in the 1990s”. This thesis rejects Jervis’ (2019) distinction, and the broader inclusion of counterfactuals within intelligence failure, on the basis that one could reasonably conclude that the failure to invest in a particular technology or capability was the primary cause of an intelligence failure 20 years hence.

On Mirroring Risk

Having bounded intelligence, and discussed the four distinct aspects of intelligence failure, this section of the review will introduce the phenomenon of mirroring risk. Renshon’s (2009: 315) model, which he applies to the Cuban missile crisis, remains the only extant “framework for understanding a class of intelligence failures” which cuts across all four of Heuer’s categories.

This thesis will contribute to the literature on intelligence failure by evaluating the robustness and validity of Renshon’s (2009) model through application to two further case studies; the Vietnam War and the Iranian Revolution. This section will review the current literature on these two intelligence failures but will first provide a detailed description of Renshon’s (2009) model, illustrating how the concept of mirroring risk has been associated with all four of Heuer’s categories of intelligence failure. This latter point has significant implications for attempting to mitigate mirroring risk, whether

through structured analytic techniques or organisational safeguards, and will be discussed alongside the key findings from the case studies.

Renshon (2009: 315) states that mirroring risk is "caused by the mis-assessment of how an adversary frames a decision and the risks that they are willing to take". Renshon (2009) discusses the impact of these two factors on US intelligence assessments from 1962 pertaining to the prospect of the Soviet Union deploying missiles into Cuba. Garthoff (1998: 46) argues that the Cuban missile crisis represents a failure of "estimative empathy", rather than intelligence. Renshon (2009: 318) acknowledges that the "US intelligence services did identify the missiles before they became operational, and seem to have provided useful and relatively accurate updates during the actual crisis". Nevertheless, the flawed predictive assessments, particularly in light of increasing evidence of Soviet activity, clearly meet the definition of intelligence failure presented in the previous section. Renshon (2009: 316) argues that the US IC "assessed Soviet intentions taking into account only the risks and costs – the 'downside' – of deploying strategic weapons into Cuba". The analysts failed to adequately consider how Khrushchev may have viewed the potential benefits of this action, or the risk of inaction.

Renshon (2009: 338) concludes that framing the decisions of an adversary "must include four things: the costs (if it fails and if it succeeds), the benefits (if it succeeds), the possible and likely motivations, and the probability of success under different sets of circumstances". This thesis will only explicitly address the costs and benefits of a potential action as components of a decision frame. Motivations and the probability of success underlie all forms of intelligence analysis, rather than being distinct elements of mirroring risk, and are reflected in the "conventional model: Threat = Intent x Capability x Opportunity" (Sfetcu 2019: 37). The two key components of mirroring risk; the framing of an adversary's decision and the risk-tolerance of the adversary, are represented in the quadrant below.

	Risk of Potential Action	**Risk of Inaction**
Cost of Potential Action		
Benefit of Potential Action		

Figure 1: Mirroring risk quadrant

Renshon (2009) argues that mirroring risk occurs whenever analysts fail to consider all four boxes in figure 1. This means that analysts must evaluate both the costs and benefits, to the adversary, of a potential action, as well as the risk that the adversary faces, both in acting and failing to act. These

two components are interlinked in a manner that can compound the impact of mirroring risk. Prospect Theory, developed by Kahneman and Tversky (1979: 279) to explain decision-making under risk and uncertainty, has established the behavioural principle that "losses loom larger than gains". Prospect Theory is the theoretical basis for mirroring risk, as "choices framed in terms of gains often lead to risk-averse choices, while framing a problem in terms of losses leads to risk-seeking behavior" (Renshon 2009: 323). In discussing the application of Prospect Theory to international relations, Levy (1992: 3) explains that a "state might be willing, for example, to fight to defend the same territory that it would not have been willing to fight to acquire". Similarly, political and military leaders "take excessive risks to recover" losses, but display more risk-averse behaviour in the domain of gains (Levy 1997: 8). In summary, the principle that losses loom larger than gains means that the cost of a potential action is more salient than the benefit. This is reflected in the risk of a potential action drawing more focus than the risk of inaction. These elements, either separately or in concert, produce intelligence assessments that systematically underweight the likelihood of adversary actions.

Mirroring risk is a component of mirror-imaging; a mechanism whereby analysts "perceive and process information through the filter of personal experience" (Witlin 2008: 89). This "everybody-thinks-like-us mindset", demonstrated empirically by Ross et al. (1977: 279) as the "false consensus effect", has contributed to several historical intelligence failures (Callum 2001: 32). In addition to the Cuban missile crisis, Renshon (2009: 332) discusses the application of mirroring risk to the Soviet "'missile gap' of 1957-1961", whereby the US IC overestimated Soviet ICBM stockpiles by a factor of several hundred. Callum (2001: 31) explains that analysts expected Soviet ICBM production to match that of the US "because the logic of 'mutual assured destruction' (MAD) was presumed universal". However, Hastedt (2013: 18) contends that "intelligence analysis during the missile gap presents us with a variety of different forms of politicization"; most notably, military intelligence officials exaggerating the threat to justify demands for additional resources.

In addition to political bias, mirroring risk is associated with cognitive, cultural and organisational bias. The Nicoll Report into the performance of the Joint Intelligence Committee (JIC) identified a "tendency to assume that factors which would weigh heavily in the United Kingdom would be equally serious constraints on countries ruled by one-party governments and heavily under the influence of a single leader" (Quoted in Goodman 2007: 531). Discussing the Report, Goodman (2007: 531) notes that "related to mirror-imaging was another fallacy that Nicoll observed the JIC often succumb to, identified as 'perseveration', or the willingness to adhere to a line of thought once begun, even when evidence points to the contrary". Heuer (1999: 62) expands on the interaction between mirroring risk and cognitive bias through the concepts of satisficing and the "mosaic theory

of analysis". Satisficing involves "choosing the first hypothesis that appears good enough"; a process likely to be influenced by the values, norms and experiences of the analyst (Heuer 1999: 31). The mosaic theory of analysis relates the intelligence process to fitting pieces together to solve a puzzle. Heuer (1999: 62) describes the analogy as "distorted", arguing that "analysts typically form a picture first and then select the pieces to fit".

Within Heuer's framework, mirroring risk is ostensibly best described as a cultural bias. George (2010: 299) states that "culturally based stereotypes of adversaries" were key determinants in intelligence failures spanning Pearl Harbor to the Yom Kippur War. Jervis (2019) presents an example from the Falklands conflict, in which Argentina's Operation Rosario was formed around the possibility of a British alliance with Chile. Jervis (2019: 176) explains that "this idea never occurred to the British, and it would have been dismissed out of hand because Pinochet's repressive regime was anathema". Other intelligence failures characterised by the projection of cultural expectations include errant predictive assessments pertaining to; Operation Barbarossa (Jervis 2019: 176), the Iraqi invasion of Kuwait (Watanabe 1997: 46) and India's nuclear test in 1998 (Bar-Joseph 2010: 26).

Finally, the relationship between mirroring risk and organisational bias can be illustrated with reference to perhaps the most salient of all intelligence failures. Discussing the 9/11 Commission Report, Paretta (2012: 301) "describes the organizational, strategic, and tactical intelligence failures as attributable to either a failure of imagination or a failure of information sharing". Organisational bias can establish or reinforce norms that inhibit objective analysis. The organisations themselves, including the "large and unwieldy US government in 2001", can in-effect shield their analysts from their subjects of interest (Gentry 2008: 260). This is not a new phenomenon. In 1934, the British Permanent Under-Secretary at the Foreign Office spoke of the failure of the military to anticipate the rise of Nazism; "Prophecy is largely a matter of insight. I do not think the Service Departments have enough. On the other hand they might say I have too much. The answer is that I know the Germans better" (Watt 1984: 268).

<u>On Intelligence Failure: The Vietnam War and The Iranian Revolution</u>

Renshon's (2009) model of mirroring risk offers an explanation for intelligence failure during the Cuban missile crisis. However, its broader applicability and robustness have not been tested. This thesis will apply the model to the Vietnam War (Tet Offensive) and the Iranian Revolution to understand the impact of mirroring risk on those intelligence failures and characterise mirroring risk with respect to Heuer's framework of intelligence failure. Justification for the case selection, and for the case study method in general, will be provided in the Methodology section. This final section of

the Literature Review will discuss the current approaches to understanding these intelligence failures, both of which have been studied extensively but not through the prism of mirroring risk.

In the 50 years following America's ignominious withdrawal from South Vietnam, several official histories detailing the contribution of the US IC have been released. Warner (2010) provides a summary of these publications, from the work of Ahern (1998; 2000; 2001; 2004; 2005; 2006), Ford (1997) and Palmer (1984) on the CIA, to contributions from the Department of Defence and NSA. Warner (2010: 637) concludes that "intelligence miscues did not lose the Vietnam War for the Americans and South Vietnamese, and good intelligence staved off collapse and defeat, but much better intelligence is required to win 'asymmetric' wars". A central theme of the struggles of the IC during the Vietnam War was the "self-deception on the part of the White House, as well as MACV, and the U.S. embassy in Saigon to emphasize good news and discount bad" (Palmer 1984: 52). Wirtz (1991a) identifies two explanations for the disconnect between the MACV-J2 (Military Assistance Command, Vietnam - Intelligence) analysts deployed to Vietnam and their civilian counterparts in the United States. CIA analysts "enjoyed a degree of detachment that was not available in Saigon", enabling them to integrate political, economic and social developments into their judgements, whilst being empowered to "identify problems without calling into question the efficacy of the programs implemented by their organization" (Wirtz 1991a: 246).

Palmer (2014: 166) writes that by 1965, Secretary of Defense Robert McNamara "relied more and more on the CIA for what he believed were more objective and accurate intelligence judgments". However, the CIA's pessimism was not universally well-received, as illustrated by General Westmoreland's reaction to what became known as the Order of Battle controversy; "What am I going to tell the press? What am I going to tell the Congress? What am I going to tell the President?" (Quoted in Wirtz 1991a: 250). The Order of Battle controversy, how to account for the irregular forces fighting in support of the Viet Cong (VC), represents the most significant internal dispute within the IC during the Vietnam War. "Divergent intelligence methodologies, differing conceptions of the Communists' army, and the military's political stake", particularly concerning the ethereal "crossover point", explain how the Order of Battle estimates put forward by the CIA and the military routinely differed by upwards of 100,000 personnel (Blankenship 2013: 98).

Kerr and Warner (2014: 44) write that "although CIA assessed the deteriorating political and military situation accurately, it did not forecast the surprise Tet (New Year) Offensive in January 1968". This event saw up to 85,000 communist troops launch a "go-for-broke offensive" on 39 of South Vietnam's 44 provincial capitals (Wirtz 1991a: 253). Although a significant tactical setback for the VC, they "achieved their political objectives during the Tet attacks by producing a shift in public and

elite attitudes toward American involvement in the Vietnam War" (Wirtz 1991b: 2). The Tet Offensive, and the months prior, will be the focus of this first case study. Although Renshon's (2009) model of mirroring risk has not yet been applied to this event, Wirtz (1991b: 6) discusses the impact of mirror-imaging on both sides; "the communists miscalculated by projecting their concepts and values on the people of South Vietnam and the Americans miscalculated by projecting their concepts and values in their interpretation of the communist effort to instigate a general uprising".

The second case study is one of the CIA's "greatest predictive and reporting failures, the Iranian Revolution" (Donovan 1997: 143). Granted access to finished intelligence and "reports from the embassy, consulates, and CIA station", Jervis (2019: 16) attributes the failure to predict the fall of the Shah in January 1979 to four factors. These "major errors" were failing to understand the role of religion and nationalism, the unwavering belief "that the Shah was strong and decisive" and the related "disconfirmable" assessment that the situation could not be perilous as "the Shah had not cracked down" (Jervis 2019: 24).

It is important to note that the Iranian Revolution was not solely a CIA, or American, intelligence failure. Sir Nicholas Browne's (1979: 44) Report, *British Policy on Iran 1974-1978*, reviews the performance of the FCO in assessing their "close and valued ally". Browne (1979) discusses the similarity in the British and American approach. Both countries banned the use of military advisors and limited contact with valuable opposition sources in order to present themselves "as 'first friend' to the Shah" (Browne 1979: 46). Ultimately, "the only sources of information were SAVAK, rumour and the controlled press"[1] (Browne 1979: 67). Nonetheless, Sir Anthony Parsons, British Ambassador to Tehran from 1974-1979, concludes that the "failure was not so much one of information but one of imagination" (Browne 1979: 84). Despite this admission, the impact of mirroring risk on the Iranian Revolution intelligence failure has not been studied. This case study is the first robust analysis of mirroring risk outside of the US IC and is also the first to incorporate assessments from multiple countries.

[1] SAVAK, the Iranian secret police, "pervaded all walks of Iranian life" (Halliday 1979: 5). Halliday's (1979) contemporary account, *The Genesis of the Iranian Revolution*, discusses the impact of institutionalised repression, along with other socio-economic and historical factors.

Methodology

Having presented Renshon's (2009) model of mirroring risk and introduced the two case studies, this section will detail and justify the methodological approach. Firstly, four distinct manifestations of mirroring risk will be derived and operationalised from Renshon's (2009) abstract definition. A broad discussion of the merits of case study design will then be followed by a detailed explanation of the case selection process. The previous section chronicled how scholars and practitioners have recorded and analysed the intelligence failures of the Vietnam War and the Iranian Revolution, respectively. This section will adopt a mirroring risk lens to focus on the most pertinent characteristics of these cases. The section will conclude with a discussion of document analysis alongside a summary of the available data sources.

Methodology: Mirroring Risk

Renshon's (2009: 315) model of mirroring risk, the "mis-assessment of how an adversary frames a decision and the risks that they are willing to take", can be manifest in intelligence analysis in the following ways:

1. Failure to frame a decision or action as both a gain and a loss.
2. Failure to analyse the risk of inaction as well as the risk of action.
3. Failure to justify assessments of a decision frame or risk profile.
4. Explicit justification of a decision frame or risk profile based on a projection of the analysts' value system(s).

The first two points above reflect the two axes of figure 1 (see page 18) and are the purest renditions of mirroring risk. They may also be the most elusive, due to the perils of establishing proof via the absence of evidence (Popper 2005). This issue is compounded in the study of intelligence analysis. Intelligence assessments may be destroyed, lost, redacted, or simply not released. The assessments that are publicly available are typically distillations of a complex, and often only loosely structured, process of analysis (Heuer 1999). It is impossible to adequately reverse-engineer this analytical process by reviewing only the finished intelligence product. Even if all contributing sources are made available, and the methods employed documented, phenomena such as "serial position effects" and the predispositions of the analyst(s), prohibit replicability (Whitesmith 2020: 13).

Nevertheless, that finished product is arguably the primary vehicle for intelligence failure. It is largely irrelevant whether the analyst considered alternative hypotheses, or approached a problem from different angles, if this nuance is not reflected in the message that is passed to decision makers. Davis (2014: 129) discusses some of the operational norms that are "encouraging analysts to depict and defend a single interpretation of complex events or a single forecast of unknowable future developments". Factors including timeliness, parsimony and a focus on the most likely and most dangerous courses of action (MLCOA/MDCOA) are joined by less defensible considerations, such as forgoing rigorous tradecraft to "make the call" (Davis 2014: 129).

To summarise, the failure to frame a decision or action as both a gain and a loss and the failure to analyse the risk of inaction as well as the risk of action both present evidence of mirroring risk, but must be weighted appropriately. For instance, these omissions are more damning in long-form strategic assessments, than in briefs that must be necessarily brief. The process of evaluating these two factors is supported by the third; the failure to justify assessments of a decision frame or risk profile. This third factor adds a level of robustness to the evidence of mirroring risk. Analysts may not address a particular decision frame or risk profile if the ones they have presented are properly substantiated. This third factor removes that element of doubt; a decision frame or risk profile presented without justification is regarded as implicit evidence of mirroring risk. The fourth factor represents the final stage of the logical progression; explicit justification of a decision frame or risk profile based on a projection of the analysts' value system(s). This factor is the most definitive evidence of mirroring risk, but is also the least likely to be present in finished intelligence products.

The intelligence reports and related material to be analysed in this study will be coded as evidence of mirroring risk based on the following criteria:

1. A decision or action is framed as a loss but not as a gain.
2. A decision or action is framed as a gain but not as a loss.
3. The risk of action is analysed, but not the risk of inaction.
4. The risk of inaction is analysed, but not the risk of action.
5. An assessment of a decision frame or risk profile is not justified.
6. An assessment of a decision frame or risk profile is explicitly justified based on factors unrelated to the subject(s).

The criteria above differ slightly from the four theoretical manifestations of mirroring risk presented at the start of this section. The primary difference is that this coding criteria does not account for mirroring risk that may be theoretically present if a decision or action is framed as neither a gain nor

a loss, or if neither the risk of action, nor inaction, is considered. This approach both increases the diagnostic value of qualifying evidence, by excluding neutral reports, and provides a solution to assessing the absence of evidence. As Kettle (2025: 8) writes, "epistemologically inactivity can be observed when there is an anticipation to the contrary". A similar motivation underlies the change to the final factor, eliminating the requirement to determine the analysts' value system(s). As Chang and Tetlock (2016: 9) outlined with their notion of the "right mistake", failures of predictive intelligence will disproportionately be coded according to criterion 1 and 3. However, mirroring risk is not normative with respect to decision frames or risk profiles, so criterion 2 and 4 offer completeness at little cost.

The criteria presented above are not contingent on the *ex-post* decision frame or risk profile of the subject(s). Critics of this formulation may argue that intelligence failure is predicated on a difference between what was assessed and what transpired. The conception of intelligence failure employed in this thesis primarily concerns processes rather than outcomes. For instance, a CIA assessment of VC activity based on a projection of how the US military would act in the same circumstances would be regarded as an example of mirroring risk, regardless of whether the assessed activity took place. This approach circumvents the requirement to calibrate intelligence assessments; a notoriously difficult exercise for singular, probabilistic judgements which are often not time-bound (CIA 1984; Rieber 2004). Similarly, attempting to retrospectively determine the decision frame and risk profile of historical groups and actors could introduce further bias if that process includes information not available to analysts at the time.

Methodology: Case Study Design and Selection

A case study research design will enable Renshon's (2009) model of mirroring risk to be tested in two distinct environments, with broader implications for all intelligence failures. This accords with Gerring's (2004: 342) definition of case study research; "an intensive study of a single unit for the purpose of understanding a larger class of (similar) units". It is important to distinguish Gerring's (2004: 342) definition of a "unit", a temporally and "spatially bounded phenomenon", from common interpretations of case study research which he discredits. Gerring (2004: 342) presents "flawed definitions", including "that the research investigates the properties of a single case" and "that the research investigates a single phenomenon". Gerring's (2004: 344) rejection of the single case research design is due to his parsimonious interpretation of a case as equivalent to "one data point". He argues that the second aforementioned definition "presupposes a relatively bounded phenomenon", at the expense of inductive research (Gerring 2004: 342). Crucially, intelligence

failures constitute the units of the proposed research design. The phenomenon, mirroring risk, will provide the lens.

Scholars and practitioners studying intelligence analysis, and in particular intelligence failure, often adopt a broader interpretation of case study research. Dahl (2017: 564) criticises this "analysis by anecdote", stating that many case studies are reduced to "narrative descriptions of specific events in order to help educate intelligence personnel about decision-making". This may be in factor in why mirroring risk is acknowledged as having contributed to intelligence failures throughout history, but Renshon's (2009) study of the Cuban Missile Crisis remains the only robust application.

The earliest reported instance of "mirror imaging bias" contributing to intelligence failure is the sinking of the Lusitania in 1915, with warnings disregarded on the grounds that "the luxury liner simply was not a legitimate target of the Germans as it had no military value" (Salchak 2014: 6). The Second World War produced two further examples; Operation Barbarossa and Pearl Harbor. Ivan Maisky, the Soviet Ambassador to the United Kingdom, dismissed the Nazi military build-up three days prior to the invasion of the Soviet Union; "A war? An assault? An attack? I find it difficult to believe. It would be crazy!" (Gorodetsky 1999: 305). Similarly, "Admiral Husband Kimmel, commander of the United States's Pacific Fleet on 7 December 1941, predicted that an attack on Hawaii would be 'national suicide' for the Japanese" (Wirtz 1991b: 2).

In addition to the Cuban missile crisis and Soviet "bomber gap" (Renshon 2009), and the Vietnam War (Wirtz 1991b), mirroring risk contributed to the failure to track South African nuclear development. Evidence of a nuclear weapons test site could not shake the preconception that "Pretoria would not want a nuclear weapon, because there is no enemy they could effectively use it on" (Heuer 1999: 70). Mirroring risk can also explain how the "overweening optimism of the IDF contaminated its readings of Arab capabilities" prior to the Yom Kippur War (Cohen 2012: 128). The phenomenon is associated with the Iranian Revolution (Callum 2001) and the Falklands War (Jervis 2019) and has been linked to the failure to predict the Iraqi invasion of Kuwait. Watanabe (1997: 46) writes that Western analysts attributed Saddam Hussein's hostile actions to an attempt to instil OPEC compliance and raise the price of oil, "while invasion seemed illogical".

Admiral David Jeremiah chaired a review of the ICs performance following unexpected nuclear tests conducted by India and Pakistan in 1998. He concluded that "both the intelligence and the policy communities had an underlying mind-set going into these tests that the BJP [newly governing party] would behave as we behave" (Quoted in George 2004: 392). Mirroring risk is one of a myriad factors that contributed to the failure to prevent the World Trade Center attacks (Witlin 2008) and is tied to

the rapid collapse of Afghanistan following the US withdrawal in 2021, with flawed projections of capability and disposition made of the Afghan National Security Forces (ANSF) (Abbe 2023). Finally, mirroring risk is evident on both sides of the Russia-Ukraine war, from the failure of some analysts to give credence to the 2022 invasion, to Russian miscalculation of the spirited and multifaceted response (Riehle 2024).

The case selection process evaluates the cases above, according to several principles, to determine the best exponents of mirroring risk. It is important to note that the qualifying cases all constitute archetypal intelligence failures. Cases in which mirroring risk occurred that did not lead to intelligence failure, whether through good fortune or good practice elsewhere in the process, are beyond the scope of this thesis. These "non-cases" would represent an interesting, although methodologically challenging, follow-up study (Klotz 2008: 46). Similarly, studying cases in which the conditions that enable and sustain mirroring risk are present, but where mirroring risk did not occur, could aid in determining the limits of its influence. These questions are both contingent on the findings presented in this thesis.

Undertaking an exploratory study of the contribution of mirroring risk to intelligence failure entails an inevitable degree of "searching on the dependant variable" (Jervis 2019: 5). Kacowicz (2004) argues that case selection bias is unavoidable and that cases should be selected according to their representativeness and ability to facilitate the research. The logic of the selection process is as follows. Firstly, the selection of at least two cases limits the confounding influence of factors that are particular to a single case. Naturally, there exists a trade-off between the number of cases that can be studied and the depth of the research. There are also diminishing returns regarding the novel elements of each additional case. Therefore, cases are evaluated in pairs, according to the scope of research that they facilitate, prior to additional cases being considered.

The first case to be rejected is the Cuban Missile Crisis and Soviet "bomber gap" as this was the subject of Renshon's (2009) study. The three cases from the First and Second World Wars are also excluded, primarily due to data limitations but also on the grounds that the operating environments are the least representative of those faced by contemporary intelligence professionals. All three failures occurred prior to the establishment of the Office of Strategic Studies (OSS). The ten remaining failures all have sufficient material available to support a study. Five concern a strategic shift or development and a further five are centred on the commencement of war, or large-scale military activity. These are the two primary problem sets for intelligence analysts, so selecting a case from each category will enable a representative study (Odom 2008). The next step is to evaluate pairs of cases according to their "relevance to the issues of interest" (Harrison et al. 2017: 10).

Factors considered include the number and variety of countries and intelligence agencies involved and the availability of intelligence reports and related material. Another consideration is the variety of subjects assessed. Intelligence failures that involve assessments of both adversaries and allies, military personnel as well as civilians, likely offer broader lessons than the narrower cases. Figure 2, below, summarises this process.

Intelligence Failure	Intelligence Agencies and Organisations	Subjects Assessed
The Vietnam War	USA: CIA, DIA, MACV, NGA, NSA	Civilians, military personnel, partner forces
The Yom Kippur War	Israel: IDI USA: METF, NSC	Military personnel
The Falklands War	UK: JIC USA: CIA, FOSIC, OSUS	Military personnel
The Iraqi Invasion of Kuwait	UK: DI USA: CIA	Military personnel
The Russia-Ukraine War	UK: DI, JIC	Military personnel, partner forces
South African Nuclear Development	USA: CIA, INR, NSA	Nuclear weapons programme
The Iranian Revolution	UK: JIC USA: CIA, DIA, INR	Civilians, military personnel, political leaders
The 1998 Indian and Pakistani nuclear tests	USA: CIA, DIA	Nuclear weapons programme
The World Trade Center attacks	USA: CIA, FBI, NSA	Non-state actors
The 2021 Withdrawal from Afghanistan	UK: FCDO, MoD, NSC, USA: CIA, NSA, ODNI, SIGAR	Non-state actors, partner forces

Figure 2: Case selection

Of the five military intelligence failures in figure 2, lessons from the Vietnam War will arguably have the broadest application. Failure in the four other cases is limited almost entirely to judgements concerning the onset of the respective conflicts. The Russia-Ukraine War does also permit a study of the opening exchanges, but only until the discrediting of the flawed contingent assumption that invasion signalled the capacity for swift victory (Renz 2024: 219).

Conversely, failure in the Vietnam War was protracted and repeated. This thesis will focus on the performance of the US IC in the months prior to the Tet Offensive, capturing the persistent

underestimation of VC capability and intent. Studying the contribution of mirroring risk to the intelligence failures in the Vietnam War involves evaluating analysis of both allies and adversaries, civilians and military personnel. The Vietnam War is also unique, with the possible exception of Russian assessments of the Ukraine conflict, in that it concerns the responses of these respective groups to actions carried out on the part of the analysts. This case also facilitates a thorough review of organisational, political and cultural factors due to the bureaucratic and geographic disconnect between the civilian analysts working across the United States and their forward-deployed military counterparts.

Of the five strategic intelligence failures in figure 2, the Iranian Revolution is the best complement to the Vietnam War. The logic behind this selection is as follows. Firstly, the World Trade Center attacks are excluded on the basis that, like the Vietnam War, the failure concerns activity conducted against the assessor. Studying these two cases would fail to address intelligence assessments in which the assessor is neither a direct participant nor potential target. Heuer (1999: 135) discusses this distinction, asserting that "an actor's personal involvement with the actions being observed enhances the likelihood of bias".

The next case to be rejected is the 2021 withdrawal from Afghanistan, due to the limited application beyond the military context. The Indian and Pakistani nuclear tests in 1998 and South Africa's nuclear development 20 years earlier are sufficiently distinct from the Vietnam War and are both representative of this class of intelligence failure. They differ from the final case, the Iranian Revolution, in one key respect; the suddenness with which the failure became apparent (National Security Archive 1998). Whereas the nuclear tests provided instantaneous evidence of flawed assessments, the Iranian Revolution was less binary and more overt. It therefore offered repeated and distinct opportunities for analysts to revise their judgements (Jervis 2019: 40). By incorporating UKIC assessments, studying the Iranian Revolution will also contribute to the literature by representing the first robust test of mirroring risk outside the US IC.

Finally, a third case was considered, with the leading candidates being the Yom Kippur War, the Indian and Pakistani nuclear tests in 1998 and the World Trade Center attacks. It was determined that the marginal benefit of a third case, in terms of scope or reinforcement, was outweighed by the contingent reduction in depth afforded to the two primary cases.

Methodology: Document Analysis and Data Sources

This final part of the Methodology section will discuss document analysis and detail the sources that will comprise the data set for each case. Document analysis is a "systematic procedure for reviewing or evaluating documents", incorporating elements of thematic and content analysis (Bowen 2009: 27). Content analysis alone could garner evidence of mirroring risk in individual reports, but document analysis permits a more systematic approach to understand the broader process behind the intelligence failures. Applying Renshon's (2009) model through document analysis will enable mirroring risk, and its association with Heuer's categories of intelligence failure, to be "inductively derived from the study of the phenomenon" (Strauss and Corbin 1990: 23).

To understand the impact of mirroring risk on the US IC during the Vietnam War, primarily concerning the Tet Offensive, US intelligence reports from 1 June 1967 to 31 January 1968 will be analysed. The eight months prior to the Tet Offensive saw a gradual increase in indicators, that were ultimately discounted by the analysts. The IC "knew the facts, but did not understand the meaning" (McFate 2006: 17). The US IC have released hundreds of reports from this period; from the CIA, DIA, NGA and NSA (ODNI 2019). This data set will be supplemented by declassified MACV documents, including the 1967 Command History. The volume of reporting is sufficient to limit the case to the US IC, mirroring Renshon's (2009) study.

The Iranian Revolution data set is formed of US and UK intelligence assessments on Iran from the period 1 June 1977 to 1 December 1978. Robert Jervis (2019: 16) selected this period for his review of the CIA's performance prior to the revolution as it began "when some minor unrest started" and ended "when the US government became alarmed". The Browne (1979: 69) Report concurs that "public opposition began to develop in mid-1977". The National Security Archive houses eight qualifying documents which will be supplemented by a comprehensive search of the CIA's Reading Room and the Jimmy Carter Presidential Library. The British reports are drawn from the *Foreign Office Files for the Middle East, 1971-1981*. This material, comprising of Diplomatic reports and reports from the British Council in Iran and the JIC, is housed at The National Archives, with physical access granted to the author by the University of Leeds.

Case Study - Vietnam War (Tet Offensive)

This section will apply Renshon's (2009) model of mirroring risk to the Vietnam War, focusing on the months prior to the Tet Offensive. This process will test the robustness of Renshon's (2009) model, including the criteria derived in the previous section, and determine the influence of mirroring risk on failures within the US IC. The section will begin by describing the historical context and detailing the intelligence reports and related material which constitute the data set. This will be followed by a characterisation of the output of the individual agencies, with all evidence of mirroring risk evaluated in turn. The section will conclude by summarising the incidence of the mirroring risk criteria and discussing the implications for Renshon's (2009) model.

The Tet Offensive, of 30 January 1968, saw up to 85,000 communist troops launch a "go-for-broke offensive" on 39 of South Vietnam's 44 provincial capitals (Wirtz 1991a: 253). Although the Viet Cong suffered substantial losses, and the campaign is often presented as a tactical failure, "the psychological effect of these unexpected and widespread assaults was devastating" (Sorley 1999: 1). This impact is a product of two factors; the willingness of the North Vietnamese to perpetuate a war of attrition and to violate a truce. These factors are also major themes of the intelligence reporting at the time. The Tet Offensive took place three and a half years after the Gulf of Tonkin incident, which precipitated an escalating US commitment to the conflict. "Tet", the Vietnamese lunar New Year, was "the most sacred of Vietnamese holidays, a time of family feasts and celebrations" and also an "annual period of cease-fire in the war" (Schmitz 2005: 83).

Case Study - Vietnam War (Tet Offensive): Data

The data set for this case study consists of US intelligence reports and supplementary material which were produced between 1 June 67 and 31 January 68. All data is drawn from the DNI's three-part "Tet Declassified" project, in which 1,126 documents from across the IC were declassified and published (ODNI 2018). Of these, 537 fall outside of the specified date range and are therefore excluded. A further eight documents are excluded as their publication dates are either not displayed or incomplete. The 581 remaining documents which constitute the final data set were all published between 1 November 1967 and 31 January 1968, with the organisational distribution shown below.

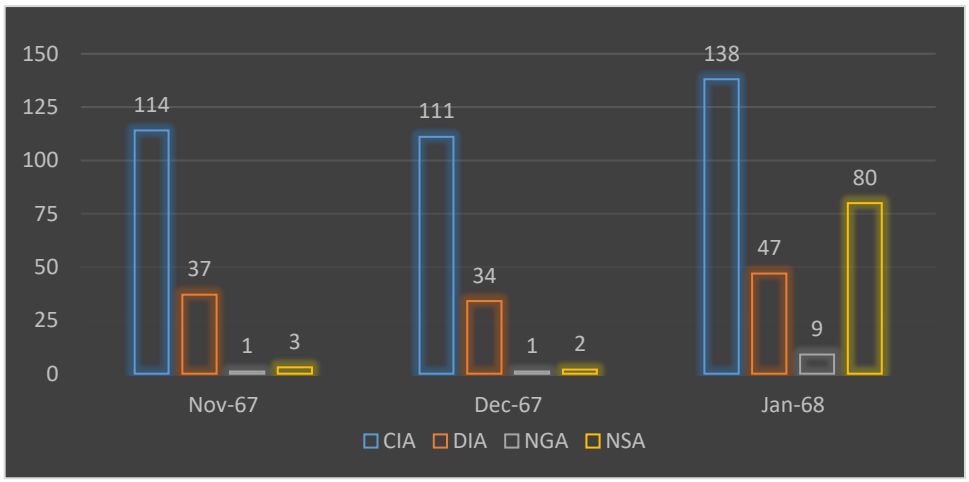


Figure 3: Data set distribution[2]

The table above prompts several observations. The most salient point is the apparent absence of MACV-J2 publications, representing the military counterpart to the civilian agencies listed in figure 3. The primary reasons for this omission are the destruction of material following the Command's disestablishment in 1973 and the responsibility for the remaining archives resting with the Joint Chiefs of Staff, rather than the DNI (MACV 1973). Several MACV documents have been declassified and released, including all three volumes of the 1967 Command History, but none that meet the criteria for primary data specified in this study (MACV 1968a; MACV 1968b; MACV 1968c). The Command History, originally published in September 1968, offers a comprehensive, but retrospective, overview of all facets of MACV operations, structure and displacement. Although the sentiment and trends of intelligence reporting is frequently referenced, the original reporting is not presented, and the reports cited have not been released. However, this does not mean that this case study will be restricted to the civilian agencies. MACV assessments are discussed, or presented verbatim, within several of the 581 primary documents; many of which also transcribe discussions between MACV staff and their civilian counterparts.

The second observation on the data set is how the publications are distributed. The "Tet Declassified" project discounted documents published prior to 1 November 1967, despite evidence that preparations were well underway at that stage (NSA 1968a). Excluding reports published between June and October 1967 curtails a comprehensive study of how the threat assessment evolved over time. However, the present study employs the Tet Offensive as a mechanism to understand mirroring risk and is therefore not encumbered by the truncated time period. In fact, focusing on the three-month period prior to Tet offers a stronger test of Renshon's (2009) model as

[2] Four additional NSA documents, each with multiple publication dates, have been excluded from this table for presentational purposes.

the mirror-imaging bias must overcome a larger body of evidence and there are fewer gaps available for bias and preconception.

A final general point on the data set is that although figure 3 represents a useful indicator of the volume and distribution of material, large proportions of the individual documents remain redacted. Equally, there are several near-duplicate documents, illustrating the wider circulation of raw intelligence or finished products, with the occasional comment or amendment. The following sections will characterise the contributions of each of the agencies, detailing all instances of mirroring risk.

Case Study - Vietnam War (Tet Offensive): NGA

The National Geospatial-Intelligence Agency (NGA) is the US DOD's principal civilian and military GEOINT organisation. The 11 documents assigned to the NGA within this case study were originally produced by one of its precursors, the National Photographic Interpretation Center (NPIC), itself a "lineal descendent of successive photointelligence organizations established by the CIA" (CIA 1978a). The NGA designation was made during the declassification and publication process and has been maintained here to reflect information ownership and best enable replicability.

The remit of the NPIC in the 1960s is similar to that of the NGA today and the 11 documents produced between 1 November 1967 and 31 January 1968 offer a representative sample of "Mission Coverage Plots" alongside IMINT reports pertaining to areas of interest. All reports are single-source and do not offer the type of strategic assessment that could succumb to the mirroring risk criteria employed in this study. There is therefore no evidence of mirroring risk among the NGA reports.

Case Study - Vietnam War (Tet Offensive): NSA

Unlike the NGA, the National Security Agency (NSA) was established prior to the Vietnam War and played a significant role, both in its escalation and throughout the protracted campaign (NSA 1995). The NSA is the US DOD's principal SIGINT agency. In the absence of an ARVN (Army of the Republic of Vietnam) SIGINT capability, the NSA provided cryptologic support, initially to the Military Assistance Advisory Group (MAAG), and then to MACV and the White House, following the expansion of the conflict in 1962.

Of the 89 NSA reports in this data set, the majority are either SPOT Reports (29) or Southeast Asia SIGINT Summaries (27). The latter are routine publications, typically daily, which summarise SIGINT

developments during the reporting period, before providing additional details on key regions and units. SPOT Reports are not routine publications and can be regarded as the NSA equivalent of Situation Reports (SITREPs). These documents enable recipients to be informed of developments which are considered too significant or time-sensitive to defer to the routine publication cycle. In the context of war, SPOT Reports will typically inform their recipients about indicators and warnings of imminent threats. Firm conclusions regarding the NSA's reporting of such threats cannot be drawn from the distribution of published reports alone, as they represent a biased sample of those originally produced. Nonetheless, it is noteworthy that, among the reports released as part of the "Tet Declassified" project, the DNI only considered three SPOT Reports produced prior to 1968 to be pertinent to the Tet Offensive.

Although the volume of published reports that are dated January 1968 is only tentatively indicative of the extent to which the reporting threshold was crossed, a declassified history of the NSA in Vietnam concurs that "by mid-January, NSA analysts were becoming concerned by NVA communications trends" (NSA 1995: 562). Regarding an impending offensive, the report concludes that "never before had the indicators been so ubiquitous and unmistakable" (NSA 1995: 562). It is important to reiterate that the intelligence failure was nuanced, concerning the failure to predict the specific date, and to a lesser extent the location(s) and nature of the VC offensive, rather than the offensive itself. That said, the NSA (1995: 563) historical report contends that a product was published on 28 January 1968 which detailed the specific time of the impending offensive for the Central Highlands and that "the commonality of terms throughout the country clearly pointed to massive, coordinated attacks".

The 28 January 1968 report is not named or cited in the NSA's Cryptologic History and the information above is not contained within any of the 5 reports produced on that date in the data set for this case study, noting that it could have been redacted. What is included in the present data set is that "commonality of terms"; a series of references to "N-Day", with the first on 11 January 1968 (NSA 1968b: 5). The 11 January SIGINT Summary explains that "in the past, the Communist [sic] have used 'N-day' to indicate the day of execution for an operation or phase thereof" (NSA 1968b: 5). "N-Day" is referred to in eleven subsequent reports, with the first four, in order of publication date, describing it as the "Vietnamese equivalent of 'D-Day'" (NSA 1968c: 1). This description may represent, or imbue, a form of cultural bias, but it cannot be considered a manifestation of mirroring risk as there is no contingent assessment.

There are three further NSA reports of note, that together offer tentative evidence of mirroring risk. The first two, the SIGINT Summaries of 23 and 24 January 1968, report that "all squadron commanders were advised that the TET truce this year would allow the troops to rest on 28 and 29

January", indicating that the North Vietnamese "apparently will not conduct any unusual operations during the forthcoming TET truce" (NSA 1968d: 7; NSA 1968e: 14). These assessments are incongruous to the volume of reporting which indicates an impending offensive, especially given the VC's acknowledgement that the Tet truce could be broken. The 26 January SIGINT Summary reports that a VC "subordinate was warned to be on guard against 'the enemy' breaking the New Year's truce" (NSA 1968f: 5). Together, these reports offer tentative evidence of mirroring risk, satisfying the third criterion; *the risk of action is analysed, but not the risk of inaction*. The evidence is tentative for two reasons. Firstly, the risk of action is implicit as the prospect of activity during the Tet truce is conspicuous in its absence. Secondly, it could be argued that the assessments within the SIGINT Summaries of 23 and 24 January are also implicit, with the COMINT presented as raw intelligence and only ratified via the absence of counterpoints.

Case Study - Vietnam War (Tet Offensive): DIA

The US Defense Intelligence Agency (DIA) was established by Secretary of Defense Robert McNamara in 1961 to streamline the intelligence functions of the respective branches of the US military (Richelson 2018: 59). According to the official DIA (2012: 6) history of *Defense Intelligence in the War for Southeast Asia*, the timing of the DIA's formation meant that the "bureaucratic aspects of agency building strained the DIA personnel's ability to keep up with intelligence requirements". The DIA's reliance on MACV for intelligence processing "effectively subordinated DIA to MACV" (DIA 2012: 19). This undermined McNamara's vision of an independent combat support agency and impaired the DIA's ability and will to challenge optimistic assessments pertaining to the ROLLING THUNDER bombing campaign and the Order of Battle controversy.

Of the 118 DIA reports in this data set, there are 44 Intelligence Summaries, 73 Ops-Int Summaries and a single Intelligence Supplement. Both types of Summary product are daily all-source intelligence reports; the Intelligence Summaries are longer-form (27-51 pages), whereas the Ops-Int summaries offer "a digest of selective operational and intelligence reports" (8-10 pages) (DIA 1967a).

The solitary Intelligence Supplement, produced on 5 January 1968, focuses on "Vietnamese Communist activities during the 1967-1968 Christmas and New Year's truces" (DIA 1968a). The document systematically details truce violations, providing a breakdown of the casualties which resulted from the 118 recorded incidents and including a comparison to the same period a year prior. The truce violations are also discussed in the Intelligence Summaries published on 2, 4 and 11 January 1968, which use quotation marks to refer to the "'truce period'" and "'cease fire'" (DIA 1968b; DIA 1968c; DIA 1968d). Despite this apparent acknowledgement of the frailty of truce

declarations, the subsequent DIA reports do not provide adequate warning of the Tet Offensive. In fact, the 29 January 1968 Intelligence Summary, produced hours prior to the Offensive, states that "the enemy may observe at least part of their 27 January-2 February Tet truce" (DIA 1968e).

The 29 January report concludes that "indications point to N-day being scheduled in the Tet period, but it still seems likely that the Communists would wait until after the holiday to carry out such a plan" (DIA 1968e). No justification is provided for this final assessment, which is contrary not only to the information provided elsewhere in the report, but to the body of evidence available at that time. As early as 8 January 1968, COMINT indicated that "*en* may be preparing for offensive *opns* prior Tet (last of Jan)" (DIA 1968f). The 29 January assessment is an archetypal example of mirroring risk, satisfying the fifth criterion; *an assessment of a decision frame or risk profile is not justified*. In this case, it is possible that the analysts discounted both the historical precedence for violations and the evidence of an impending offensive in favour of a projection of the US attitude towards perfidy and the norm of adhering to a declared truce.

The next two reports of note fall short of the mirroring risk criteria. The first is the 3 November 1967 Intelligence Summary, which analyses the VC approach to recording downed enemy aircraft (DIA 1967b). The report contends that units being directed to "engage the enemy if necessary to obtain the evidence" of falsely-reported downed aircraft is indicative of over-reporting (DIA 1967b). The report concludes that a "change in flight pattern and altitude that causes the contrail to disappear might be interpreted as a kill" and that "Hanoi's exaggerated claims are more a result of poor reporting procedures than purposeful propaganda" (DIA 1967b). This assessment, although partially justified, prompts a comparison with the US approach to the trade-off between accuracy and propaganda-value of data. The Order of Battle controversy is the best exponent of this, but a more tactical example is presented in the 16 January 1968 Intelligence Summary (CIA 1967a). Vinh Binh Province is assigned a "desertion rate of 40 per cent among 'combat guerrillas' (village and hamlet level) compared with 30 per cent at the district and provincial level" based on a single HUMINT source (DIA 1968g). Although the 3 November 1967 assessment is incomplete, as it fails to explicitly consider the possibility that propaganda-value drives the apparent over-reporting, it does not satisfy the criteria for mirroring risk.

In a similar vein, the 8 December 1967 Ops-Int Summary reports that the VC are "having difficulty maintaining hold on people in Tuy Hoa area of Phu Yen Prov." (DIA 1967c). The report explains that captured documents detail that "'warnings' given to some 400 civs", with "preparations made to 'arrest' some 225 others" and "14 civs sentenced to death" (DIA 1967c). The report also notes that "recruitment effort in Vinh Binh Prov not going well" (DIA 1967c). Once again, this report prompts a

comparison with the US, in this case to the domestic political context and efforts to quell opposition to the war. Contrary to the DIA assessment, it could be argued that the actions of the VC represent a demonstration of control and that the report therefore has a biased frame. However, the absence of a contingent assessment, related to the consequences of "having difficulty maintaining hold on people", means this report does not satisfy the criteria for mirroring risk (DIA 1967c).

The final DIA (1968h) report of note is the 15 January 1968 Intelligence Summary, which states that "there are no indications that the enemy intends to push further south than Nam Bac … a political symbol for the enemy since they possessed the area at the time of the 1962 Geneva accords". It could be argued that the Geneva accords were not as salient to the North Vietnamese as they were for the Americans, based on the record of violations and questions concerning Sino-Soviet influence (FRUS 1965). On this basis, this report offers tentative evidence of mirroring risk, satisfying the sixth criterion; *an assessment of a decision frame or risk profile is explicitly justified based on factors unrelated to the subject(s)*. The evidence is only tentative for two reasons. Firstly, it is possible that the amplifying information regarding the Geneva accords is provided for context rather than as the driver of the assessment. Secondly, although the VC may reject the Nam Bac designation, it may nonetheless carry a degree of "negative salience" (Rytina and Morgan 1982: 93).

Case Study - Vietnam War (Tet Offensive): CIA

The Central Intelligence Agency (CIA) conducted a broad range of activities during the Vietnam War, from "rural reconstruction operations" to "covert political and psychological warfare" (CIA 1961). This section will focus on the CIA's role as the principal originator of intelligence assessment and analysis during the conflict. This is reflected in the volume of material produced between November 1967 and January 1968, which is a combination of daily and weekly intelligence reports, including the President's Daily Brief (PDB), and Intelligence Memoranda.

The first instance of mirroring risk is found in a document published on 8 December 1967, titled "The Viet Cong/North Vietnamese Winter-Spring Campaign" (CIA 1967b). Discussing the VC approach of "promising their followers and cadres victory within a short period of time", the document concludes that this entails "a high risk of engendering serious disillusionment and disaffection among the VC/NVN rank and file when the promises are not fulfilled" (CIA 1967b). This assessment satisfies the third criterion of mirroring risk; *the risk of action is analysed, but not the risk of inaction*. An Intelligence Information Cable, dated 11 December 1967, offers a similar assessment; "VC failure to live up to the expectations they have created, however, would result in large-scale defections" (CIA

1967c). This report offers only tentative evidence of mirroring risk, however, as the use of "would" is conditional, whereas "will" denotes certainty.

The 8 December report referenced above is reproduced alongside two other intelligence reports, with additional CIA commentary, to form a Memorandum for the President, dated 16 December 1967. On the prospect of a "decisive" offensive, a summary presented on the first page concludes that "'this situation could have serious effects on Viet Cong morale and lead to a substantial increase in defections' if the campaign fails" (CIA 1967d). This summary is not representative of the CIA commentary, which warns that VC intent "should not be underrated" (CIA 1967d). This demonstrates the dangers of selectively reproducing intelligence products and arguably satisfies both the first and third criteria of mirroring risk.

Further evidence of mirroring risk is discussed within the CIA (1967d) commentary, which states that "the field papers are predicated on the assumptions that the present rate of attrition is not acceptable to the Communists". The note seeks to "question the validity of these assumptions", offering an evidence-based assessment that "the Communists remain capable of replacing their losses and of maintaining the basic military force structure" (CIA 1967d). The CIA (1967d) commentary concludes that the "Communists view their military effort in a political-psychological context that is not always compatible with Western precepts". This conclusion offers support to the notion that mirroring risk is a cultural phenomenon.

The next document of note is the 10 December 1967 Vietnam Station Report. Discussing a potential winter-spring offensive, the report states that "on the face of it, this seems a mad thing to do", posing the question "what is the enemy up to and what possible reasons are there for his odd behavior?" (CIA 1967e). Although this dismissive sentiment appears to typify mirroring risk, the report goes on to consider the risk of North Vietnamese inaction, providing an accurate and balanced assessment of the upcoming offensive (CIA 1967e). This document is therefore key to our understanding of mirroring risk, suggesting that it can be overcome through structured, effortful tradecraft.

The importance of the analytical process is also illustrated in a Memorandum for the Director, dated 18 January 1968, which offers "Alternative Interpretations of Hanoi's Intentions" (CIA 1968a). Discussing the progress of the war, the document argues that "there are three hypotheses under which the situation in Vietnam may be considered and to which most of the evidence may be related: (1) Hanoi has decided that it must terminate the fighting in the course of this year; (2) Hanoi still feels a good measure of confidence in its prospects and firmly intends to fight on until it

perceives a break in its favor in US policy; (3) Hanoi is less certain of its prospects and is keeping several options open" (CIA 1968a).

At first glance, the courses of action presented above may appear balanced, but the language used clearly frames the continuation of the conflict in the domain of losses. This alone is not necessarily indicative of bias. What is indicative of bias is that this frame is not supported by the available intelligence. The Memorandum focuses on "our view of the data", a projection of American challenges related to morale, population control and recruitment, before conceding that "based on a variety of sources and buttressed by the recent testimony [redacted] ... the strains of the war on North Vietnam are still well within manageable limits" (CIA 1968a). This report satisfies the first criterion of mirroring risk; *a decision or action is framed as a loss but not as a gain*. Discussing alternatives to the three hypotheses presented above, the Memorandum argues that "many of them are so unlikely as to be irrelevant" (CIA 1968a). This comment suggests that mirroring risk can occur if intelligence questions have a biased frame, excluding certain eventualities at the outset.

The cognitive challenge of entertaining a possibility that has been excluded from consideration, explicitly or implicitly, is also illustrated in the final CIA report of interest. The 26 January 1968 Bulletin concedes that "a widespread, coordinated offensive by enemy forces in the northern part of South Vietnam seems imminent", but counters that "unless the Communists are prepared, however, to carry out major violations of their own ceasefire which is scheduled to begin today at noon (EST), the major thrust will be postponed until after the Lunar New Year period ends on 2 February" (CIA 1968b). The historical precedent for truce violations and the overwhelming volume of evidence of an impending offensive satisfies the sixth criterion of mirroring risk; *an assessment of a decision frame or risk profile is explicitly justified based on factors unrelated to the subject(s)*.

Case Study - Vietnam War (Tet Offensive): Discussion

The final part of this section will summarise the key findings from this case study. Of the 581 documents within the data set, nine present evidence of mirroring risk, with the criteria satisfied as follows.

Criteria	Incidence
1. A decision or action is framed as a loss but not as a gain.	2
2. A decision or action is framed as a gain but not as a loss.	0
3. The risk of action is analysed, but not the risk of inaction.	4
4. The risk of inaction is analysed, but not the risk of action.	0
5. An assessment of a decision frame or risk profile is not justified.	1
6. An assessment of a decision frame or risk profile is explicitly justified based on factors unrelated to the subject(s).	2

Figure 4: Mirroring risk criteria incidence

Archetypal intelligence failures, such as the Tet Offensive, concern the failure to predict a decision or action, or aspects thereof, as opposed to predicting activity which does not take place. In this context, the absence of evidence in support of the second and fourth criteria is expected. What is noteworthy, however, is that the four remaining criteria are all satisfied. This offers strong support to Renshon's (2009) two-stage model of mirroring risk and represents the first structured application of that model outside of the Cuban missile crisis.

In addition to the nine instances of mirroring risk, twenty further reports of note are discussed. Many of these reports partially satisfy the mirroring risk criteria but stop short of offering contingent assessment. These reports are instructive in that they share similar characteristics with the confirmed instances of mirroring risk, such as a cultural bias or a biased analytical frame. The Discussion section of this thesis will employ Heuer's framework of intelligence failure to explore how cognitive, cultural, organisational and political bias interact with the threshold for mirroring risk.

Case Study - Iranian Revolution

The previous section established that Renshon's (2009) model of mirroring risk has application beyond the Cuban missile crisis. This section will apply the model to both US and UK intelligence assessments made in the 18 months prior to the Iranian Revolution. This will determine the influence of mirroring risk on the failure of the respective ICs to predict, and at times keep pace with, events in Iran in the late 1970s. It also represents the first test of the model outside of the US IC, the first comparative application, and the first to involve assessments of an ally. The section will begin with a discussion of the historical context, before providing an overview of the actors and organisations which constituted the ICs. The nature of the intelligence outputs will be reviewed, facilitating a more detailed discussion of the products and reports which form the primary data sets. All reports of note between 1 June 77 and 1 December 78 will be evaluated. The section will conclude by detailing the incidence of mirroring risk and discussing the implications for Renshon's (2009) model.

The Iranian Revolution culminated in the exile of Mohammad Reza Pahlavi, the Shah of Iran, in January 1979, and the establishment of the Islamic Republic of Iran. In a report commissioned by the CIA, Devlin and Jervis state that popular discontent with the Shah's authoritarian regime produced an initial wave of political protests and open letters in the latter part of 1977 (NSA 1979). The protests, typically occurring at 40-day intervals in accordance with Shia customs, grew in number and scale in opposition to the Shah's modernisation reforms (Sullivan 1981: 139). Two key features of this "White Revolution" were "the Shah's liberalization program" and a "politico-economic problem" (NSA 1979). The liberalisation programme prompted protests on the grounds that it was being carried out at the behest of the United States (Sullivan 1981: 92). Ironically, the programme itself facilitated discord as it granted the various opposition groups the "luxury of dissent" (NSA 1979: 58). Many of the dissenters were economic casualties of the reforms, despite the 1973 oil boom. The resulting spike in revenues "enabled the government to avoid unpopular measures" (NSA: 1979: 55). They could both "avoid heavily taxing the rich" and "forgo ties to the grassroots", creating substantial inequality whilst losing touch with public opinion (NSA 1979: 58).

The Iranian establishment was not alone in being isolated from developments in the Mosques, Universities and bazaars. Both the US and UK ICs had comparatively small footprints in the country, given its economic and strategic importance. Discussing the "paucity of resources dedicated to Iran", Robert Jervis (2019: 21) notes that "there were only two political analysts and two economic analysts in CIA; neither INR nor the Defense Intelligence Agency (DIA) had an expert on Iranian politics". Similarly, the Browne (1979: 77) Report on *British Policy on Iran 1974-1978* concluded that

"insufficient time was devoted to political developments in Iran", with "fewer officers well qualified for political reporting than posts for which there are good grounds". Ostensibly, these resourcing decisions reflected, and therefore embedded, the assumption that Iran would remain stable under the Shah's leadership. On a related note, William H. Sullivan questioned his appointment as US Ambassador to Iran in June 1977, a full 6 months after Richard Helms' resignation. Despite admitting to knowing "nothing of the country or of the region", Sullivan (1981: 16) was appointed for his "experience in dealing with authoritarian governments and with leaders who were forceful personalities". The expectation of continuation was clear.

Neither the US, nor the UK were the architects of the White Revolution, but the respective Governments did passively support the Shah's reforms. Equally, the claims of some anti-Shah protestors were not without historical precedent, given the role of the CIA and MI6 in the 1953 coup (CIA 1998). The resulting delicate political relationship further hampered the work of the analysts. Intelligence analysts are typically not permitted to comment on the policies of their respective governments. Jervis (2019: 19) explains that, in the case of Iran, this restriction prevented analysts from addressing the "discrepancy between what they expected to happen if the situation deteriorated and the advice the United States was giving". Furthermore, the Shah banned interaction between foreign officials and the opposition movements, including the religious fraternity (CIA 1978b; BDOHP 2005: 34). This attempt to delegitimise the dissenting factions made the analysts increasingly reliant on the Shah's constricting inner circle. These challenges underlie Alexander's (2013: 2) remark that assessing your allies "may still reasonably be termed the 'missing dimension to the missing dimension'". The growing isolation of the Shah, and by extension the ICs, is exemplified by a remark attributed to UK Ambassador Sir Anthony Parsons. In response to the Shah's defence, that he had six intelligence agencies reporting to him every morning, Parsons reportedly challenged that "each of those six agencies, before it comes to see you, checks up with the other five as to what they want you to be told" (BDOHP 2005: 35).

The structural impediments of the respective ICs are reflected in the operational production cycles maintained during this period. Jervis (2019: 43-47) offers a detailed review of the output of the CIA's National Foreign Assessment Center (NFAC). He concludes that "the system produced a steady stream of summaries of recent events with a minimal degree of commentary, analysis, and prediction" (Jervis 2019: 43). Jervis (2019: 44) contends that "the problems are greatest with the NID [National Intelligence Daily], which concentrates on telling what has happened and only rarely contains analysis or forecasts". British reporting, from the Embassy, the FCO and the JIC, follows a similar theme, with scant predictive assessment chiefly reserved for the impact of the unrest on British commercial interests ("The Future for British Interests in Iran", undated, FCO 8/3194). The

analysis is founded on the implicit "pre-existing belief that the regime was very strong and that the opposition was weak and divided" and no mechanism existed to challenge these assumptions by building on, or synthesising, prior reports (Jervis 2019: 44).

Case Study - Iranian Revolution: Data

The restrictions under which the ICs were operating, and the absence of a data source akin to the "Tet Declassified" project, rendered the process of establishing a primary data set an interesting challenge (ODNI 2018). The timeline for qualifying reports mirrors that selected by Jervis (2019: 16); from 1 June 1977, "when some minor unrest started", to 1 December 1978. Browne (1979: 69) concurs that "public opposition began to develop in mid-1977", with "obvious signs of trouble" by the end of 1978. Although many of the key aspects of the Revolution did not take place until early the following year, by December 1978 it was almost universally accepted that "the Shah has been irreparably damaged by recent events" (CIA 1978c).

The first eight documents in the US data set are part of a limited National Security Archive (2019) publication, titled "Iran's 1979 Revolution Revisited". This selection totals 12 documents, although four of these, including Devlin and Jervis' aforementioned review, fall outside of the qualifying period (NSA 1979). Six of the eight qualifying documents are Telegrams or Airgrams sent from the Tehran Embassy. The final two documents are an unclassified Intelligence Appraisal titled "Iran: Religious-Inspired Opposition" and a 23-page Iran National Intelligence Estimate (NIE), published on 1 September 1978 (NSA 1978a; NSA 1978b).

These eight documents are supplemented by all CIA electronic records published in the qualifying period which satisfy the search query "Iran". This search, of the CIA's Reading Room, returned 576 results, but 118 were excluded for containing no reference to Iran or not constituting an intelligence product. It is possible that some of the excluded reports had been published with references to Iran redacted, but it is more likely that the search satisfied a generic metadata tag. Of the results that were excluded on the basis that they were not intelligence products, the vast majority were archived contemporary media reports. Of the 458 qualifying primary documents, the two largest categories are NID Cables (81) and Weekly Economic Intelligence Reports (60). The remaining 317 documents are a combination of Memoranda and SITREPs, alongside transcripts of interviews and public addresses made by CIA officials.

The final primary US data source is the Jimmy Carter Presidential Library. The electronic records of this library cannot be filtered by publication date, so the search query was amended to "Shah" to

target relevant material. This search returned 77 results, of which four satisfied the criteria of intelligence products or related material published between 1 June 1977 and 1 December 1978. The primary US data set is therefore comprised of 470 documents.

The UK data set is drawn from the *Foreign Office Files for the Middle East, 1971-1981*. After filtering for date of publication, the search query "Iran" returned 680 results. Each individual result is a collection of documents and reports related to a particular issue. Given the breadth of the archive, the search query was amended to "Iran" *and* "Shah", returning 269 results[3]. This narrower selection forms the primary UK data set, although the precise number of individual reports is difficult to determine. This is due to the following caveats. Firstly, many individual reports are reproduced, either in full or in part, both within and across the 269 search results. These reproductions either represent several iterations of a working document or illustrate that a report pertains to several thematic areas. Furthermore, many individual documents and some entire collections were produced outside of the specified date range. In the latter case, these results were entered into the registry between 1 June 1977 and 1 December 1978, but their contents were published beforehand. Finally, many further results contain no reference to Iran or do not constitute intelligence reports or related material.

The following sections will discuss all noteworthy reports in chronological order, with the US IC followed by the UKIC. Consideration was given to structuring this analysis according to the recognised macro-level intelligence failings, chiefly "the issue of the Shah's willingness to use force" and "splits in the opposition" (NSA 1979). However, this could impose a bias as individual instances of mirroring risk may pertain to multiple failings. As such, this secondary element of the analysis will be reserved for the Discussion section.

Case Study - Iranian Revolution: US IC

The first report of note from the US data set is the "International Issues Monthly Review", published on 26 April 1978 (CIA 1978d). This report assesses that "the Shah's principal worry is the Soviet Union" (CIA 1978d). This assessment is presented without justification and despite the difficult domestic conditions having been reported on for over six months at that time. For instance, the NID published on 4 October 1977 acknowledges that "the Iranian government may be concerned about arousing further anxiety among a population already experiencing economic and other problems"

[3] This difference, despite the influence of the Shah on all aspects of life in Iran, can be explained in-part by metadata tagging and in-part by references to a Mr Biran, a Minister at the Israeli Embassy (Mr Tomkys to Mr Tatham, 19 September 1977, FCO 8/2940).

(CIA 1977). Furthermore, the 9 November 1978 NID concludes that "The Soviets probably would not serve their interests by becoming actively involved against the Shah" (CIA 1978e). The April Review satisfies the fifth criterion of mirroring risk; *an assessment of a decision frame or risk profile is not justified*. In this instance, the analyst(s) may be projecting their own outlook and concerns onto the Iranian government.

The next pertinent report is the 17 June 1978 NID. In justifying the assessment that "the government may again call upon the army to support the police", the report notes that "troops have been used effectively in dealing with past disturbances of limited scope and duration" (CIA 1978f). As the report does not challenge the Shah's prediction of a "year or two of unrest", the justification above is also arguably an implicit assessment that military support will be sufficient to quell the dissenters (CIA 1978f). However, as this comment is presented in a neutral frame, it does not fully satisfy the fifth criterion of mirroring risk.

From August 1978, there is an increased volume of relevant material. An Airgram dated 1 August 1978, with the subject "Uncertain Political Mood", presents HUMINT from a "source who has been helping broker ... contacts with religious groups" (NSA 1978c). The Airgram contains the following summary: "source represents pessimistic view current in several circles but probably overstates negative aspects of present situation. Support for various elements of his views are found in other quarters as well, however, and Iranian political mood seems a roller coaster for the moment" (NSA 1978c). The document concludes that "the actual situation is not, of course, as bad as tableau being painted by pessimists" (NSA 1978c). These assessments are overtly biased, and no attempt at justification is made, thus satisfying the fifth criterion of mirroring risk; *an assessment of a decision frame or risk profile is not justified*.

A Memorandum dated 9 August 1978 and titled "Iran: A Political Assessment" discusses concessions made by the Shah, notably his commitment to holding elections in 1979. The paper assesses that "this step has not been forced on the Shah by events but rather seems to be part of his deliberate timetable for developing the kind of Iran that he envisages" (CIA 1978g). By focusing on the Shah's agency and the positive consequences of this decision, this paper tentatively meets the second criterion of mirroring risk; *a decision or action is framed as a gain but not as a loss*. The circular logic employed by the analysts is exposed by the contention that "the Shah is depending on the strength of his own position" (CIA 1978g).

Perhaps the most discussed report from this period was published on 28 August 1978, with the title "Iran After the Shah" (CIA 1978h). Its notoriety is derived from the assessment that "Iran is not in a

revolutionary or even a 'prerevolutionary' situation" (CIA 1978h). Although this assessment is evidently flawed, with no justification presented, it does not pertain to a decision frame or risk profile, so does not satisfy the mirroring risk criteria. Nonetheless, this flawed assessment is particularly noteworthy, given it is incongruous to the purpose of the paper, which explicitly "assumes that at the Shah's demise there will be no warring groups competing to seize the throne" (CIA 1978h). This approach enables analysts to concentrate their efforts on a particular subset of eventualities; in this instance, the likely key actors in a smooth transition of power. What is startling about the report is how similar it is in tone to the rest of the US IC's output during this period. This suggests that the assumption that the Shah would be able to facilitate a smooth transition of power was embedded amongst analysts. Rather than explicitly employing this assumption to frame their work, the analysts were hindered by an implicit possibility that was becoming less and less possible every week.

The next report of note is the sole NIE published during this period. This report, dated 1 September 1978, assesses that "the security situation will finally be quieted, if at all, only following significant concessions by the Shah and the government over and above what they have already offered" (NSA 1978b). However, in the same paragraph, the report references the "almost universal tendency among Iranians, and certainly among the political and religious opposition, to interpret any concessions as signs of weakness that should be exploited" (NSA 1978b). This logical discrepancy was a central feature of the intelligence failure and offers tentative evidence in support of the sixth criterion of mirroring risk; *an assessment of a decision frame or risk profile is explicitly justified based on factors unrelated to the subject(s)*.

There are two final reports from the US data set to be discussed in this section. The first of these is titled "Iran: Roots of Discontent", published on 20 October 1978. This short report concludes that "the fundamental cause of the turmoil in Iran today is the impact of modernization" on a society which is "unequipped emotionally and intellectually to deal with an overload of alien influence" (CIA 1978i). Although this report does not meet the criteria for mirroring risk, the exaggerated, pejorative wording is indicative of an environment within the IC which failed to account for fundamental cultural, socio-economic and religious dynamics.

The final report is an Intelligence Memorandum published on 20 November 1978 detailing "the Politics of Ayatollah Ruhollah Khomeini", a central figure in the conservative Shia opposition (CIA 1978j). One of the six "Key Points" listed on the first page of the report is the assessment that a "regime under Khomeini's influence would be xenophobic and probably prone to instability" (CIA 1978j). The prediction of instability is of limited value as it follows the familiar circular logic which

criticises the lack of "precedent in Iran's modern history for what Khomeini proposes" (CIA 1978j). The reference to xenophobia is just one paragraph removed from the following comment: "in place of the Shah, Khomeini advocates the creation of a *vaguely defined* 'Islamic Republic' to be guided *only* by the principles of Shia Islam" (CIA 1978j, emphasis added). Although it does not meet the criteria for mirroring risk, this report offers an instructive representation of the approach of the US IC to assessing the opposition factions, particularly the Shia contingent.

Case Study - Iranian Revolution: UKIC

The initial observation on the UK data set is the repeated reference to the similarity between the UK and US assessments. Beyond presenting CIA comment on JIC assessments or encouraging the "full exchange of views between the two Embassies in Tehran", several reports justify assessments by referring to an affinity with the US IC ("Mr Browne to Miss Sanderson", 22 December 1977, FCO 8/2980; "Mr Westmacott to Miss Sanderson", 1 March 1978, FCO 8/3202; "Mr Lucas to Mr Murphy", 13 September 1978, FCO 8/3185). FCO papers published on 17 and 28 November 1978 note that the US "assessment of the Iranian situation was very similar to ours" and "very much in line with our own assessment" ("Mr Tulse to Mr Tatham", 17 November 1978, FCO 93/1339; "Mr Tatham to Mr Gorham", 28 November 1978, FCO 8/3196). Responding to a JIC assessment on 6 October 1978, the British Embassy in Washington takes it one step further, stating "we and the Americans are clearly at one" ("Mr Carrick to Mr Maxey", 6 October 1978, FCO 8/3186).

Although this commonality of assessment does not necessarily indicate that analysts from the UK and the US employed the same methodologies, wider evidence of a shared approach comes in the form of the FCO report titled "What happens if the Shah dies?" (4 July 1974, FCO 8/3194). This paper, originally published in July 1974 but referenced extensively as the unrest developed, employs the same analytical device as the CIA's report on "Iran After the Shah" (CIA 1978h). Although Parsons devotes more of the analysis to "the negative, quasi-revolutionary, elements" that could precipitate a transition of power, the UKIC exhibit similar failings in their pre-revolutionary assessments ("What Happens if the Shah Dies", 4 July 1974, FCO 8/3194).

The first reports of note from the UKIC are two Embassy reports published on 6 April 1978 and 24 May 1978, both held in a file titled *Human Rights and Political Dissent in Iran*. Discussing the Iranian Government's publicity campaign related to the violent protests, the 6 April report concludes that "the publicity may be used as a prelude justifying a later clamp-down on dissent, though we have no evidence of this, and in the light of the Shah's pledge after Tabriz to continue liberalization a clamp-down would be an unlikely volte-face" ("Internal Political Situation", 6 April 1978, FCO 8/3210). The

24 May report describes “the difficulty of seeing how the situation will resolve itself, except in another clamp down which the Shah himself and his more enlightened supporters do not want” (“Internal Situation”, 24 May 1978, FCO 8/3210). The report goes on to state that “the general mood could change for the better simply because of lack of stamina amongst the opposition” (“Internal Situation”, 24 May 1978, FCO 8/3210). No evidence is presented for this eventuality, which satisfies the fifth criterion of mirroring risk; *an assessment of a decision frame or risk profile is not justified*. The 6 April report acknowledges and qualifies the absence of evidence and therefore does not satisfy the criteria.

The 24 May report offers further insight into the challenge of assessing the disparate factions of Iranian society. The vehemently anti-Shah groups are conspicuously, and almost comically, absent from the discussions held “with our more outspoken Iranian friends, both those who are pro-Shah and those who are moderately anti-Shah” (“Internal Situation”, 24 May 1978, FCO 8/3210). Unsurprisingly, among those groups, “few people anticipate the collapse or the violent overthrow of the regime” (“Internal Situation”, 24 May 1978, FCO 8/3210).

Although not an intelligence report, the FCO record of *Anglo-French talks on the Middle East* is noteworthy in that it addresses the challenge for Western analysts posed by the religious opposition. The discussion acknowledges that the Mullah’s demands cannot be readily incorporated into the familiar left/right framework; “they belonged to a political polarisation which had no equivalent for us” (“Anglo-French talks on the Middle East”, 21 June 1978, FCO 8/3069).

The final report of note is the Annex to a *Report on Iran*, published on 7 November 1978. It concludes that “there is no sign of the Shah taking a back seat” (“Report on Iran: Annexe”, 7 November 1978, FCO 8/3195). An unattributed hand-written comment below this line states “on the contrary, this is one of the problems” (“Report on Iran: Annexe”, 7 November 1978, FCO 8/3195). Although this report does not meet the criteria for mirroring risk, it is representative of a different type of flawed assessment; one that can never be disproved. The 7 November assessment is aligned to the theory that the Shah will crack down once the threat posed by the opposition reaches a certain threshold. The theory may appear valid, but the assessment above is flawed as there is no diagnostic distinction between evidence that the Shah is taking a back seat and evidence that the opposition has not yet reached the required threshold.

Case Study - Iranian Revolution: Discussion

The final part of this section will summarise the key findings from this case study. The main conclusion, illustrated below, is that intelligence assessments produced by both the US and UK ICs in the 18 months prior to the Iranian Revolution succumbed to mirroring risk.

Criteria	Incidence: US IC	Incidence: UKIC
1. A decision or action is framed as a loss but not as a gain.	0	0
2. A decision or action is framed as a gain but not as a loss.	1	0
3. The risk of action is analysed, but not the risk of inaction.	0	0
4. The risk of inaction is analysed, but not the risk of action.	0	0
5. An assessment of a decision frame or risk profile is not justified.	2	1
6. An assessment of a decision frame or risk profile is explicitly justified based on factors unrelated to the subject(s).	1	0

Figure 5: Mirroring risk criteria incidence

Despite a larger data set, with 470 US reports and several hundred full and partial UKIC reports, there were fewer instances of mirroring risk than in the case of the Vietnam War (Tet Offensive). However, this is not representative of the incidence of mirroring risk across cases as the makeup of the respective data sets are quite different. The present case relies on a much broader range of data, both in type and subject matter, than that which constitutes the DNI's "Tet Declassified" project. Similarly, therefore, a judgement on the incidence of mirroring risk across the respective ICs cannot be formed based on this data alone. This observation also raises questions about the nature of Renshon's (2009) model and the type of data which it can accommodate. These will be explored in the following section.

What is noteworthy about this case is the evidence in support of the second criterion. The second and fourth criteria, the inverse of the first and third, were originally derived for completeness to ensure the criteria were not normative. The support for the second criterion illustrates that these two criteria are essential constituents of the formation of mirroring risk, particularly in not constraining the type of intelligence challenges that it can apply to. The following section will discuss this, and other implications of both case studies, in more detail, including the relationship between mirroring risk and the different macro-level intelligence failings of the Iranian Revolution.

Discussion

The primary contribution of this thesis is the derivation and testing of mirroring risk criteria, based on Renshon's (2009) model. Evidence of mirroring risk is exhibited in intelligence assessments produced by American analysts in the Vietnam War and by British and American analysts during the Iranian Revolution. Renshon's (2009) model, along with the criteria derived in this thesis, can therefore be regarded as robust.

However, as noted at the end of the previous section, a purely quantitative comparison of the incidence of mirroring risk across the two cases is misleading due to the nature of the respective data sets. Renshon's (2009) model relies on analysts making assessments but the mechanism that produces mirroring risk may also, *in extremis*, prevent assessments from being made. Predictive assessments, even those at the extremes of the probability yardstick, require analysts to entertain multiple eventualities. If an eventuality, such as disruption to the status quo, simply cannot be conceived, then an assessment may not be made. The counterpoint to this criticism is that this circumstance often produces the most profound manifestations of mirroring risk, in which analysts state with certainty that a particular event will (or will not) happen. Furthermore, assessments are the standard mechanism through which to study intelligence failure and the impact of bias. For instance, Chang et al. (2018: 2) assert that status quo bias "occurs when analysts overweight the 'no-change' hypothesis in their assessments". Rather than a theoretical critique of the model itself, this is a note of caution related to the interpretation of the model's numerical output.

The extent to which mirroring risk can be understood quantitatively is limited. When attempting to cohere the literature on mirroring risk, it is therefore particularly important to place the phenomenon within the broader framework of intelligence failure. This section will discuss the two case studies in accordance with Heuer's framework, before considering how mirroring risk may best be mitigated. The section will conclude by proposing avenues for further study.

Discussion: Cognitive Bias

Cognitive biases are heuristics which impact "the formation of initial beliefs, and the adjustment of beliefs during the processing of information" (Whitesmith 2020: 2). The link between mirroring risk and the formation and adjustment of beliefs is best explored with reference to two CIA reports published prior to the Tet Offensive. The first of these, titled "Alternative Interpretations of Hanoi's Intentions", proposes "three hypotheses under which the situation in Vietnam may be considered" (CIA 1968a). These hypotheses are framed in the domain of losses, despite evidence elsewhere in

the report that "the strains of the war on North Vietnam are still well within manageable limits" (CIA 1968a). As a result of this initial frame, the analysis is anchored to a narrow, biased range of eventualities. If a comprehensive range of hypotheses were developed, including those which may seem "so unlikely as to be irrelevant", assessments would be both less tied to an initial anchor, and more readily adjusted (CIA 1968a). These two factors would make it harder for mirroring risk to take hold.

The second report which offers insight into the process of belief formation and adjustment is the 10 December 1967 Vietnam Station Report. The report states that a VC winter-spring offensive "seems a mad thing to do", questioning "what is the enemy up to and what possible reasons are there for his odd behavior?" (CIA 1967e). Ultimately, the report provides an accurate and balanced assessment of VC activity, considering both the risks of action and inaction. This suggests that mirroring risk is an intuitive "System 1" function that can be overridden via a methodical, effortful "System 2" approach[4].

Understanding mirroring risk as an intuitive cognitive bias can also explain the logical discrepancy within the 1 September 1978 NIE. This report assesses that "the security situation will finally be quieted … only following significant concessions by the Shah", yet also references the "almost universal tendency among Iranians … to interpret any concessions as signs of weakness" (NSA 1978b). In this case, the intuitive System 1 assessment, that further concessions are required (as they may be in response to protests in the US or UK), is contradicted by the more thorough analysis. This inconsistency would be less salient if the initial assessment had been removed or qualified. Ironically, it likely remained in the report as it had not been disconfirmed. However, the assessment itself is disconfirmable. It will always be possible to offer concessions "over and above what they have already offered" (NSA 1978b). Ambiguous, disconfirmable assessments, such as those which underestimated the security situation because "the Shah had not cracked down", enable mirroring risk (Jervis 2019: 24).

Discussion: Cultural Bias

Cultural bias is central to both case studies. The Tet Offensive intelligence failure is characterised by the projection of American attitudes to losses and cease-fires on the North Vietnamese. Similarly, British and American analysts reporting on events in Iran in the late 1970s failed to grasp the

[4] Popularised by Daniel Kahneman's (2011) book, *Thinking Fast and Slow*, the terms "System 1" and "System 2" were first applied to the dual-process model of human thinking by Stankovich and West (2000). Richards (2010: 104) discusses this model in the context of intelligence analysis.

importance of religion and of nationalism. Evidence from both case studies supports the argument made by George (2010) and Towner and Cozine (2023) that cultural and cognitive bias are inherently linked. This contention is supported by the mirroring risk criteria derived in this study. Renshon's (2009) original criterion, justification "based on a projection of the analysts' value system(s)", is amended to justification "based on factors unrelated to the subject(s)". This produces neutral criteria which enable a robust test of the interaction between mirroring risk, cultural bias and intelligence failure.

The reports analysed in both case studies exhibit systematic cultural bias. There are two main manifestations of the cultural bias and both concern intelligence gaps. In the first, the gap is not acknowledged, an "unknown unknown", leading to the omission of significant cultural factors (US Department of Defense 2002). An example of this type of cultural bias would be the underestimation of the impact of North Vietnamese propaganda, "on the theme of 'glorious communist victories'", prior to the Tet Offensive (DIA 1968i). With the second type of cultural bias, the intelligence gap is recognised but leads to a projection of the analyst(s) decision frame and/or risk profile. This form of cultural bias is exemplified by the faulty US projection of casualty thresholds onto the North Vietnamese.

Cultural bias is acknowledged by analysts in both case studies. A Memorandum for the President published by the CIA (1967d) concludes that "the Communists view their military effort in a political-psychological context that is not always compatible with Western precepts". The report explains further that "'Victory' for them can be simply avoidance of defeat, if by doing so they frustrate -- and thereby 'defeat' -- the aims of their opponent" (CIA 1967d). Similarly, discussing attempts to characterise the disparate opposition groups in Iran, an FCO report published on 21 June 1978 acknowledged that "they belonged to a political polarisation which had no equivalent for us" ("Anglo-French talks on the Middle East", 21 June 1978, FCO 8/3069).

Evidence in support of neutral mirroring risk criteria from reports that exhibit cultural bias clearly indicates a cultural component to mirroring risk. However, it is important to state that the omission or projection of cultural norms and values is not strictly synonymous with mirroring risk. For it to be considered mirroring risk, this biased analysis would have to take place under a flawed analytic framework that would fail to address the risks of both action and inaction and/or fail to consider the potential benefit, as well as the potential cost, of an adversary action.

Discussion: Organisational Bias

Organisational bias is a theme of both case studies. The assumption "that the Shah was strong and decisive" was both reflected in and emboldened by several organisational aspects of the respective ICs (Jervis 2019: 24). The Shah indirectly influenced how the ICs were resourced, as well as which individuals were appointed to senior roles (Sullivan 1981). He also directly forbade contact with opposition elements, which both the US and UK ICs honoured. Organisational bias enabled mirroring risk prior to the Iranian Revolution.

In the context of the Vietnam War intelligence failure, organisational bias is synonymous with the Order of Battle controversy. Although this episode gained public notoriety following the surprise of the Tet Offensive, the more optimistic "MACV assessment was much closer to reality" (Wirtz 1991a: 253). Discussing the apparent discrepancy between the 85,000 communist troops assessed to have participated in the offensive and the CIA's conservative estimate of a total strength of 600,000, Adler (1986: 202) asks "what were the remaining five hundred and fifteen thousand doing during Tet?" Despite its significance to the domestic US audience, the organisational bias that produced this controversy had minimal operational impact on Tet. The absence of original MACV assessments prevents a similar organisational comparison related to the Tet Offensive. The differences in the output of the remaining elements of the US IC are dictated primarily by their respective disciplines, rather than a "conspiracy at the highest levels of American military intelligence" (Wirtz 1991a: 239).

Discussion: Political Bias

The organisational bias underlying the Order of Battle controversy was inherently political in nature. Analysis and assessment were skewed by "top-down" and "bottom-up" politicisation, which are features of both case studies more broadly (Eisenfeld 2017: 83). Attempting to tease apart the relative influence of organisational bias and politicisation in a particular case may be intuitively appealing but is futile. Heuer's categories of intelligence failure are not zero-sum. In fact, the categories are inherently linked, so the presence of one type of bias renders the others more likely. This assertion is supported by the relationship between political bias and cognitive bias in both case studies.

Prior to Tet, intelligence indicating an impending communist offensive was discounted, often without justification. The lack of justification suggests that this manifestation of mirroring risk is the result of cognitive bias associated with a flawed "System 1" process. However, political bias must be considered a potential factor, given that the direction of the bias is in the primary customer's favour.

Similarly, British and American assessments about the future of Iran were heavily influenced by the precedent of the Shah's forceful response to protests in 1963. Why did this anchor appear more "available" to analysts than the Constitutional Revolution of Iran, which saw disparate groups, united by a common enemy, engender "radical transformations in the system of government" (Tversky and Kahneman 1973: 207; Abrahamian 1979: 386)? Political bias could provide the answer, as once again assessments were biased in accordance with customers' hopes and expectations[5].

Discussion: Mitigating Mirroring Risk

The preceding discussion illustrates the relevance of all four of Heuer's categories of intelligence failure to both case studies and to mirroring risk. The challenge of compartmentalising mirroring risk is reflected both in the varied application of the term in the academic literature and in the difficulty for practitioners attempting to address the phenomenon. It could, however, offer an opportunity for practitioners, if efforts to mitigate mirroring risk focus on the intersections within Heuer's framework.

The contention of this thesis is that mirroring risk is related to and enabled by all four of Heuer's categories of intelligence failure. Therefore, efforts directed at discrete categories, such as certain structured analytic techniques or organisational safeguards, will have a degree of influence on mirroring risk, in addition to their broader benefits. However, a greater influence on mirroring risk specifically may be achieved by addressing the links between the biases. Paradoxically, this can involve relaxing our technical understanding of mirroring risk. For instance, Callum (2001: 32) uses the term "mirror-imaging" interchangeably with the "everybody-thinks-like-us mindset''. This is an imperfect representation of mirroring risk, as defined by Renshon (2009) and the criteria derived in this study, as it suggests that it is strictly a cultural phenomenon. However, the "everybody-thinks-like-us mindset'' may be an instructive way for practitioners to understand the term (Callum 2001: 32).

Framed in this way, mirroring risk can be understood as a cognitive bias, in the same family as confirmation bias and serial position effects. It is also rendered synonymous with cultural bias and ethnocentrism, as per George's (2010) definition. The interaction between cognitive and cultural biases, in this instance, is crucial for the mitigation of mirroring risk. Towner and Cozine (2023: 3)

[5] This is despite the analytical incentive for caution, "stressing avoiding false-negative errors" (Chang and Tetlock 2016: 8). Mirroring risk may also be motivated by "the 'right mistake' defense", if faulty assessments based on familiar values are regarded more favourably than those grounded in the subject(s)' culture (Chang and Tetlock 2016: 9).

assert that "structured analytical techniques cover a range of cognitive pitfalls, but only a few can be applied to analyzing foreign or culturally different adversaries". These techniques include devil's advocacy, red teaming and the Analysis of Competing Hypotheses (ACH) (Chang et al. 2018).

Devil's advocacy, famously instituted within Israeli military intelligence following the Yom Kippur War, offers licence "to challenge an analytic consensus or a key assumption" (CIA 2009: 21). Similarly, red teaming "models the behavior of an individual or group by trying to replicate how an adversary would think about an issue" (CIA 2009: 35). However, the utility of this approach is "rooted in the analyst's cultural understanding and assumptions, which may vary significantly" (Towner and Cozine 2003: 3). The ACH process involves forming a matrix of hypotheses and evidence, before determining the diagnostic value of each piece of evidence through a "focus on disproving hypotheses rather than proving one" (CIA 2009: 19). Whitesmith (2020: 97) notes that the goals of the ACH method are "to reduce epistemic complexity", "to prevent or reduce cognitive bias" or, at the very least, "to make cognitive biases visible to external examination". Mandel and Tetlock (2018: 4) caution that improper use of "ACH would be promoting the use of the representativeness heuristic under the guise of a debiasing strategy".

The impact of these techniques on the incidence of mirroring risk could be tested in an experimental setting, although sufficient data would likely require the use of proxy variables, such as the breadth of hypotheses considered, as well as testimony from the analysts. Mirroring risk may also be mitigated in part simply by making analysts aware of the everybody-thinks-like-us mindset. Priming analysts in this manner could encourage a more deliberate "System 2" approach, although there is limited experimental and empirical support for the impact of forewarning alone (Kahneman and Tversky 1974; Epley and Gilovich 2005). Finally, subsequent studies could target events which share similar characteristics to the Tet Offensive and the Iranian Revolution, but where mirroring risk did not occur. If analysts can avoid mirroring risk despite overt political pressure, organisational incentives to "make the call", cultural naivety and impending deadlines, their methods deserve to be studied (Davis 2014: 129).

Conclusion

This thesis contributes to the literature on intelligence failure by developing our understanding of mirroring risk, both empirically and theoretically. Renshon's (2009) model of mirroring risk is tested and ratified, according to a novel criteria, against data sets comprising of over 1,300 intelligence reports and documents produced during the Vietnam War and Iranian Revolution. In addition to exploring its tactical application, the two case studies offer insight into the theoretical conceptualisation of mirroring risk. The picture is a complex one, with mirroring risk associated with each of Heuer's (1999) categories of intelligence failure. Nevertheless, evidence from individual reports in which mirroring risk was acknowledged or overcome suggests that it functions similarly to other "System 1" cognitive biases, albeit with a cultural aspect (Stankovich and West 2000).

Paradoxically, mitigating mirroring risk may require relaxing this nuanced conceptualisation. Although any measure that addresses part of Heuer's framework will have a degree of impact on the incidence of mirroring risk, this abstract rendering may be difficult for practitioners to isolate and address. It may instead be more effective to target mirroring risk via a proxy, such as the "everybody-thinks-like-us mindset'' (Callum 2001: 32). This related phenomenon is distinct from mirroring risk, with explicit reference to projection and culture, but could offer a tangible and focused heuristic for practitioners to target.

Understanding that scholars and practitioners require different answers to the question of *"how does mirroring risk contribute to intelligence failure?"* explains the lack of coherence in the literature. It may also be instructive for researchers exploring other phenomena associated with intelligence failure.

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