Intelligence for a complex environment: transforming traditional intelligence with insights from complexity science and field research on NATO

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3. The Intelligence Habitus

Where the previous chapter examined only topics from the debate in intelligence studies, this chapter aims for a more comprehensive view in answering the second research question: *How did the intelligence habitus evolve?* Next to theory, knowledge from the environment of intelligence practice must also be examined to get a clear understanding of how intelligence evolves. This more holistic view of intelligence is needed because it is false to assume knowledge over intelligence is only produced within academia. Furthermore, it is interesting to see if the three topics of transformation (intelligence cycle, proliferation of theory, paradigm debate) are reflected in this holistic perspective. This chapter consists of seven sections. The first section presents the structure of this chapter, sections 3.2-3.6 form the actual analysis, followed by a conclusion.

3.1 Structure of the chapter

This section first explains the concept of 'habitus' that is used to integrate theory and practice to gain a holistic view of intelligence. Second, the framework to analyse the habitus is presented. Lastly, some reflections on the framework are made.

3.1.1 What is the intelligence habitus?

This chapter aims to look beyond, but not dismiss, the theoretical approach so far and also include the practical environment of intelligence. To explain this stance the concept of 'habitus' is used. As presented below, habitus is in line with the postmodern approach of this research. The concept enables a multidisciplinary broadening in the study of intelligence, while also incorporating the practice of the intelligence environment with, among others, new technologies and world events.

Habitus is introduced by French sociologist, anthropologist and philosopher Pierre Bourdieu who concerned himself with the *'absurd opposition between individual and society'*.[149] Bourdieu engages with the culture-versus-naturalness dichotomy that is prevalent in many concepts of social science and philosophy. This also entails, for example, the opposition of subjectivism and objectivism – as seen in intelligence theories.[150] The opposition is about what is the 'true' governing factor of life. Is it a

[149] Pierre Bourdieu, *In Other Words: Essays Towards a Reflexive Sociology* (Cambridge: Polity, 1990), 31.

[150] Richard Jenkins, *Pierre Bourdieu* (London: Routledge, 1992), 40.

structuralist belief in universal rules of social life (objective) or a postmodern individual outlook (subjective)?

Bourdieu meant habitus to overcome this opposition between, using another related dichotomy, agency and structure. It fuses the opposite factors by focussing on the interplay between them. For Bourdieu, life is not about objective facts of society (theory), nor about how we discern these facts in our own subjective way (practice). It is about the interplay between theory and practice; a theory of practice — explained in his equally titled book.[151] This focus on interplay relates well to complexity. The world can be seen as a collection of Fields, as Bourdieu calls them. These are social realities with their own unique rules, in their turn partly shaped by practice. Habitus is how an individual organises itself to maximise its gain in interaction with a field. In its turn, the Field is partly shaped according to earlier practice. The Habitus is about disposition – not opposition – regarding the event-specific relations between practice and theory. The Habitus is a combination of agent-specific traits, regularities derived from experience and common knowledge regarding a field, and the behaviour in matching these against the specific situation.[152] Stated differently, it is a continuum of improvisation and regulation. In the words of Bourdieu: *'The habitus, the durably installed generative principle of regulated improvisations, produces practices which tend to reproduce the regularities immanent in the objective conditions of the production of their generative principle, while adjusting to the demands inscribed as objective potentialities in the situation, as defined by the cognitive and motivating structures making up the habitus.'*[153]

Habitus in the context of this research is thus the combination of intelligence practice and theory. It is about how intelligence is constituted by, and influences, several fields. This holistic view serves to place the dominance of academic theory in the transformation approach in context. In its aim to examine the evolution of the intelligence habitus in a further comprehensive manner, a framework is adopted to

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[151] Pierre Bourdieu, *Esquisse D'une Théorie De La Pratique, Précédé De Trois Études D'ethnologie Kabyle* (Genève: Librairie Droz, 1972). English translation: Outline of a theory of practice.

[152] Jenkins, *Pierre Bourdieu*, chapter 4. Jen Webb, Tony Schirato, and Geoff Danaher, *Understanding Bourdieu* (London SAGE Publications, 2002), chapter 2 & 3.

[153] Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977), 78.

cover multiple fields of intelligence change. The next part explains the framework of this chapter and reflects on it. The succeeding sections apply the framework to the development of the intelligence habitus.

3.1.2 Framework

The development of the intelligence habitus is viewed through the framework from Buzan and Hansen's *The Evolution of International Security Studies* (2009). The self-explanatory title sets a clear aim for the book. The 'evolution' of Buzan and Hansen is structured according to five driving forces: great power politics, technology, events, academic debate, and institutionalisation. Security studies, like intelligence studies, is a subfield of international relations. This makes the driving forces well suited to adopt as framework for the broad approach of this chapter.

Buzan and Hansen see these drivers of international security studies in two different notions. They shape what subjects and issues are defined as the security problems, and they shape how people produce knowledge about these.[154] In this research the framework allows for an analysis of how the intelligence habitus is influenced by, and influences, the fields of great power politics, technology, events, debate and institutionalisation. By adopting the same framework to analyse the intelligence habitus it is possible to add knowledge to intelligence from the fluid constitution of strategic, war and conflict studies and peace research, and of course real world developments. It will also be interesting to see if the notions of complexity from the previous chapter, persist in this chapter and the framework. The next section describes the general framework. The driving forces are expanded upon in the introduction to their own sections.

The five forces are generated from literature as they *'most adequately account for the major conceptual movements, for continuities as well as transformation'*. Buzan and Hansen also look at *'key themes and explanatory factors'* in international relations and international security studies in combination with a more general perspective from sociology of science literature. From this perspective is concluded that any social structure is shaped by the disposition of five forces, see Table 3.[155]

[154] Barry Buzan and Lene Hansen, *The Evolution of International Security Studies* (Cambridge: Cambridge University Press, 2016), 39-40.

[155] Ibid., 40-41.

Driving force	Description
Great power politics	Material power.
Technology	Knowledge.
Events	History and the shadows it throws into the future.
Academic debate	Social constructions.
Institutionalisation	Wealth and organisational dynamics.

Table 3: The five driving forces.[156]

Power, technology and events are external factors in the evolution of international security studies and related fields. Academic debate and institutionalisation are internal factors. These five factors are not static but are always in motion. At the same time the factors are not easily separable nor mutually exclusive, they interact. Temporarily and locally some of these factors may be more significant than others. This makes a framework of a *'heuristic explanatory quality'* that is structured yet historically and empirically sensitive in its analysis; The framework is not meant to seek causal explanations and weigh the impact of a factor against that of the others, it is meant to provide overview and depth.[157]

Buzan and Hansen explicitly take a Kuhnian perspective in their sociology of science. From this, they rightfully point out that old and new paradigms are so fundamentally different that they are incommensurable. They cannot be really compared as the entire framing of the research topic, the object of study and how to interpret the results are involved. This is an important point that is often missing in intelligence literature, as seen in Chapter 2. Buzan and Hansen state this is somewhat problematic with a sociology of science perspective. It makes it difficult to conclude when incommensurability manifests itself.[158] Stated differently, the tipping point when the ruling paradigm loses (a part of) its truth value, and a new paradigm emerges is difficult – if not impossible – to discern. The exact moment when new

[156] Compiled by author.

[157] Buzan and Hansen, *The Evolution of International Security Studies*, 41.

[158] Ibid., 43.

empirical evidence and novel theories gain a sufficient coherence to be called a paradigm is elusive, just as even defining a paradigm scientifically is.

Building on their Kuhnian stance, Buzan and Hansen, state that the progress of knowledge is not solely caused by scientific evidence. One must also consider *'other forces that play into the evolution of any field of study'*. Given that Kuhn stressed that a paradigm can only really be judged by its own scientific standards, can other non-scientific factors perhaps contribute to existing paradigms and add new perspectives? And what are these other factors? This absence of a theoretical standard and how to overcome it, how to see and measure the world, is a key characteristic of academic debates as a driving force. Next to debates, the other driving forces of the framework are found to represent the *'variety of material and ideational ways in which [international security studies] has interacted with the wider world'*. These internal and external forces in the framework form an interplay that is key to understanding fundamental change.[159]

The five driving forces of great power politics, technology, events, academic debate, and institutionalisation accommodate a pluriform perspective, emphasising the interconnectedness of scientific, sociological and technological factors. In an intelligence sense, it can place e.g. 9/11 or the war in Afghanistan, as specific events, in the context of broader developments such as technological innovation and power politics.

The framework is thus a theory in the European sense. It is *'something that organises a field systematically, structures questions and establishes a coherent and rigorous set of inter-related concepts and categories, but not in the American positivist sense of the term (which requires cause-effect propositions)'*.[160] Though incommensurable paradigms are just that, a pluriform and interconnected approach can still draw insights from a single paradigm. To sharpen the framework, the next section makes some reflections on, and additions to, the framework.

3.1.3 Reflections on the framework

Because the framework of the five driving forces will form the structure of this chapter, it is worth to reflect upon. The above mentioned characteristics that make the framework a sufficient model to adopt are, after all, brought up by the creators of the framework. A less subjective perspective might provide new insights. The

[159] Ibid., 43-47.

[160] Ibid., 47.

journal *Security Dialogue* volume 41, issue 6 (2010) contains a special section with articles that react on *The Evolution of International Security Studies,* and Buzan and Hansen's reaction on these. Two of these are discussed below because of their relevance to the adoption of the driving forces in this chapter specifically, or this research in general.

Miller's critique is on the depiction of traditionalist security studies in *The Evolution of International Security Studies*. The book sees traditionalists as dominant and *'preoccupied with bipolarity, obsessed with nuclear weapons, state-centric, policy-driven, force-oriented, and content to live within these narrow and unquestioned boundaries'*. Miller argues that Buzan and Hansen represent the challengers of the traditionalists and thus present an different depiction of traditionalists than they would present themselves. According to Miller, traditionalist security studies never was unified or homogenous but divided by political, ideological, disciplinary, methodological, and theoretical perspectives. [161] Buzan and Hansen, in their turn, state that Miller's claim that they are challengers to the traditionalists is a construction of the book, not the view of its authors.[162] To take from this is the importance of explicitly stating one's research approach and philosophical stance. This research, based on postmodern ideas and complexity theory, has the danger of simplifying the traditionalist perspective in intelligence, i.e. the positivist approach. The examination of the simplicity of Cold War intelligence in the next section aims to provide a more nuanced image to balance too rigid framing on the postmodern side.

The second insightful reaction on *The Evolution of International Security Studies*, for the purposes of this research, is by Williams who states the relationship between the public and the private has an important role in conceptions, politics and practices of security. He suggests adding it to the four structuring questions. This would open the framework to include several public/private topics of which one is of particular interest for this research: the rise of private actors. The role of these actors in the security domain has grown rapidly in the last few decades. It consists of private military companies and commercial security firms that are involved in various

[161] Steven E. Miller, "The Hegemonic Illusion? Traditional Strategic Studies in Context," *Security Dialogue* 41, no. 6 (2010): 639-40.

[162] Barry Buzan and Lene Hansen, "Beyond the Evolution of International Security Studies?," ibid.: 660.

operations such as combat, logistics, guarding and risk analysis.[163] Buzan and Hansen find the idea of the public/private topic *'intriguing'* but question *'whether the inclusion of the public/private as a fifth question will change our story or just retell it with a richer, deeper content'*.[164] The growth of the number of private security actors is reflected in intelligence. An often cited figure in this is the 2007 revelation that 70% of the US intelligence budget is outsourced.[165] Therefore this research will also pay attention to private intelligence and outsourcing under the driver of institutionalisation in section 3.6..

After these reflections and additions the framework needs a time frame. This is drawn from Chapter 2 that showed the challenges of intelligence lie in moving from the Cold War to the present day. To investigate how intelligence evolved from the Cold War to the present the framework will start with 1947 and end with 2020. 1947 is chosen as starting point after the world war because it saw a concentration of defining moments: the Truman Doctrine, the American National Security Act and Kennan's Mr. X article. This, of course, does not mean there is a sharp divide between the first and second half of the 1940s. The Japanese attack on Pearl Harbor constituted a major intelligence failure. Preventing a second surprise like Pearl Harbor was the *'guiding purpose'* of the intelligence architecture established after WW2.[166] Also, to name another example of continuity, the successful SIGINT cooperation between the US and Britain to defeat the Nazi's would be reinstated in the face of the new Soviet threat.

Next to omitting all of the pre-Cold War intelligence developments, the timeline does not aim for an exhaustive history of intelligence. Providing a detailed historical overview requires a research project of its own and is not the purpose here. There

[163] Michael C. Williams, "The Public, the Private and the Evolution of Security Studies," ibid.: 624, 28.

[164] Barry Buzan and Lene Hansen, "Beyond the Evolution of International Security Studies?," ibid.: 664.

[165] S. Chesterman, "'We Can't Spy... If We Can't Buy!': The Privatization of Intelligence and the Limits of Outsourcing 'Inherently Governmental Functions'," *European Journal of International Law* 19, no. 5 (2008): 1056.

[166] Lowenthal, *Intelligence: From Secrets to Policy*, 19.

are better works that provide excellent overviews or historical case-studies.[167] For this research, only major developments that helped to form intelligence as it is now are reviewed. These major developments will be presented in a table at the end of this chapter.

Summarised, the theoretical topics of intelligence transformation from Chapter 2 exist mostly within the academic field of intelligence studies and are too narrow and one-dimensional to draw any conclusions about the evolution of intelligence as a whole. A more comprehensive approach is needed. Therefore, intelligence as a whole is seen as the convergence of theory and practice exemplified by the concept of habitus. The intelligence habitus is examined by adopting the framework of Buzan & Hansen. This approach will answer the second research question on the evolution of intelligence. Specifically, it will show if the notion of complexity from the transformation debate resonates with broader developments within intelligence. The next section will start the process of adding data to the framework and analysing it. This is done according to the five drivers of the framework in subsequent sections 3.2-3.6.

3.2 Great power politics

The first driving force of the framework to examine the intelligence habitus is great power politics. This compromises: 1.) The distribution of power among leading states. 2.) The patterns of amity and enmity among them. 3.) Their degree of interventionism in the international system. 4.) Their particular disposition towards security.[168] This makes great power politics a logical driver, it is the genesis of strategic studies. This connects very strongly with intelligence and its policy-support role to maintain or expand state power – and to protect against other states. This section consists of four time periods: Cold War, peace dividend, War on Terror and the return of great power politics.

3.2.1 Cold War

Security analysis during the Cold War was largely about studying US-Soviet superpower rivalry in a bipolar system with global, overt and covert influence.

[167] e.g. Christopher Andrew, *The Secret World: A History of Intelligence* (Yale: Yale University Press, 2018); John Keegan, *Intelligence in War: Knowledge of the Enemy from Napoleon to Al-Qaeda* (Random House, 2004).

[168] Buzan and Hansen, *The Evolution of International Security Studies*, 52.

Though the frame of the Cold War remained stable it fluctuated with periods of détente and periods of increased animosity. It was dominant enough however to treat other topics and events as structured according to the frame, or see them as consequences of the frame.[169]

During the Cold War intelligence was mainly geared towards Soviet military capabilities and political developments, and is therefore regarded as relatively static and simple, as seen with the debate on paradigms. This is not entirely unfair given its unifying characteristic of having the Soviet Union, as the only other world power, as an opponent for over four decades. This section however aims to nuance this monolithic image of Cold War intelligence and examine it further in two ways. First a historical overview of intelligence developments in this period will be given, as part of the pillar of Great Power Politics. The major developments will question the static image of Cold War intelligence. Second, the simplicity of Cold War intelligence will be examined further.

From World War to Cold War

After the Truman Doctrine in 1947, and based on Kennan's Mr. X article in the Foreign Affairs issue of July that year, the US adopted a policy of containment towards the Soviet Union. Kennan stated the Soviet Union was an inherently expansionist state. If it could be contained within its borders it would eventually have to deal with the flaws of the communist system and be forced to change or cease to exist. For Kennan the competition between the superpowers was mainly political and economic. Other policy officials and the Korean War later on steered containment towards a more military approach. Containment for a long period provided a focus for intelligence. It was very clear what the policy was that had to be supported. Possible areas of political, military and economic Soviet expansion and their capabilities to do so were collected upon and analysed.[170]

The year 1947 also saw the creation of the American National Security Act. The act established the National Security Council and the Central Intelligence Agency (CIA), the first US peacetime, civilian intelligence organisation. In 1961 the service branch intelligence organisations became their own organisation; the Defense Intelligence

[169] Ibid., 50, 53.

[170] Lowenthal, *Intelligence: From Secrets to Policy*, 252-53.

Agency (DIA). The formation of the DIA fits in the centralisation trend of US intelligence.[171] This was a reaction to the poor American strategic intelligence of the Second World War in general and the Japanese surprise attack on Pearl Harbor specifically. An attack was not anticipated due to a lack of information sharing between intelligence and operations personnel and between services. To address this, the CIA, as apparent from its name, would fuse all available and own intelligence to inform the president. This centralisation became a defining feature of American intelligence.[172]

Directly after the Second World War British intelligence was mainly concerned with (former) colonies and mandates such as India and Palestine. By 1948 the Soviet Union had become the top priority of British intelligence.[173] The Soviet Union not only focused Western intelligence effort it also drove intelligence cooperation. Already in 1946, the same year the British SIGINT agency Government Communication Headquarters was established, the United States and Britain made the UKUSA Agreement to share everything regarding SIGINT. This agreement came to include the British commonwealth nations of Canada, Australia and New Zealand – giving birth to the term Five Eyes community. In a second instance of major long lasting strategic cooperation, the US provided the North Atlantic Treaty Organization (NATO), established in 1949, with intelligence on Soviet military capabilities to base its defence policy on.[174]

By 1950 Soviet and American intelligence were at a stalemate. Both superpowers possessed atomic weapons but had no understanding of each other's capabilities and intentions.[175] A new impulse was given by the North Korean invasion of South Korea on 25 June, undetected by Western intelligence. As remedy against future surprise attacks the United States started a worldwide warning system exploiting its regional military commands around the world established in the Second World War. Each command created a watch centre with around the clock monitoring of its geographical territory. These centres were connected to similar ones within the

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[171] Michael Warner, "The Rise of the US Intelligence System, 1917–1977," in *The Oxford Handbook of National Security Intelligence*, ed. Loch K. Johnson (New York, NY: Oxford University Press, 2010), 114.

[172] Treverton, *Reshaping National Intelligence for an Age of Information*, 72-73.

[173] Warner, *The Rise and Fall of Intelligence: An International Security History*, 137.

[174] Lowenthal, *Intelligence: From Secrets to Policy*, 253.

[175] Warner, *The Rise and Fall of Intelligence: An International Security History*, 145.

intelligence services on American soil. Near real-time communications allow the centres to exchange information about possible crises. Fearing a Soviet first strike without a declaration of war a methodology was created to prevent surprise attack. Preparations for war could not remain undetected. If key targets could be monitored indications for war would be discovered. If a certain threshold was reached it would constitute a warning. The watch centres were transformed to Indications and Warning Centers and Indications and Warning (I&W) intelligence became a major component of US intelligence.[176] Based on scenario's, trigger events and their consequences are formulated. These are matched against incoming information and intelligence to determine what scenario is most relevant and if there are any possible deviations.

The improvements in technical espionage and reconnaissance provided a picture of Soviet capabilities that was clear enough to gain the confidence of policymakers to promote arms control and détente by the 1970s.[177] This period also marked the stagnation of improvement as Warner notes: *'Although any choice of dates for monitoring institutional change has to be somewhat arbitrary, it seems fair to say that the "Intelligence Community" in the United States had by 1977 developed beyond its infancy and troubled adolescence into a configuration in many ways quite similar to its current (2009) form.'*[178] Despite, or perhaps because of, collecting intelligence on the Soviet sole enemy for so long the collapse of the Soviet Union blindsided the CIA and US intelligence. Though it must be stated that the CIA was pointing towards stagnating Soviet economy, and its effects, for years.[179]

[176] Arthur S. Hulnick, "Indications and Warning for Homeland Security: Seeking a New Paradigm," *International Journal of Intelligence and CounterIntelligence* 18, no. 4 (2005): 594-95.

[177] Thomas Graham, Jr. and Keith A. Hansen, *Spy Satellites: And Other Intelligence Technologies That Changed History* (Seattle: University of Washington Press, 2007), 118-19.

[178] Warner, "The Rise of the US Intelligence System, 1917–1977," 107.

[179] Michael J. Sulick, "Intelligence in the Cold War," in *Guide to the Study of Intelligence*, ed. Peter C. Olseson (Falls Church, VA: Association of Former Intelligence Officers, 2016), 135.

Observations on the 'simplicity' of Cold War intelligence

The overview above shows several developments that help understand Cold War intelligence beyond the common, static notion. There was a dynamic of change and improvement. What is constant however, is the familiar context of the Soviet Union as single and capable opponent. At least in the American case it was the 'predominant national security issue'.[180] While many issues in the Middle East and post-colonial conflicts demanded attention as well, these *'did not shape the process and profession in the way that the 'Soviet target' did'*.[181] The scope of US intelligence interest in the SU was broad and far reaching.[182] Intelligence was geared towards the *'acquisition of 'tangible' technical military, scientific and economic indicators through clandestine and specialized collection mechanisms'*.[183] This is in line with the positivist approach of accumulating measurement to ascertain reality or truth.

The Soviet Union as single dominant opponent and the straightforward intelligence organisation created to confront it is however where the simplicity ends. Ascertaining the Soviet threat specifically proved difficult. To do so, in line with the hunt for tangible and technical indicators, David Singer's quintessential and, in his own words, 'quasi-mathematical' formula of *threat perception = estimated capability x estimated intent* was adopted.[184] To date, Singer's formula is widely used to ascertain the threat of intelligence targets, reflecting ideas of a positivist approach. The difficulty in Singer's formula lies in estimating intentions. Where military capabilities are physically observable, intentions are elusive. Because of this practical fact the focus was often on military capabilities, not intentions.[185] Herman describes the workings of Western threat perception of the Soviet Union: *'Western intelligence maximized the threats of Soviet military force. […] Initially Western attitudes were formed by assumptions about worldwide communist objectives and*

[180] Lowenthal, *Intelligence: From Secrets to Policy*, 13.

[181] Rathmell, "Towards Postmodern Intelligence," 91.

[182] Lowenthal, *Intelligence: From Secrets to Policy*, 252.

[183] Rathmell, "Towards Postmodern Intelligence," 91.

[184] J. David Singer, "Threat-Perception and the Armament-Tension Dilemma," *The Journal of Conflict Resolution (pre-1986)* 2, no. 1 (1958): 94.

[185] Floribert Baudet et al., "Military Intelligence: From Telling Truth to Power to Bewilderment?," in *Perspectives on Military Intelligence from the First World War to Mali: Between Learning and Law*, ed. Floribert Baudet, et al. (The Hague: T.M.C. Asser Press, 2017), 8.

by the way Soviet behaviour seemed to bear them out; nevertheless it was Soviet military capabilities and potential that appeared to transform this picture of hostility into a massive threat. As the Cold War progressed the Soviet strategic arsenal and conventional military superiority took a growing place in the Western world-view, particularly as world communism and Soviet support for decolonization came to be of less weight. Military targets were intelligence's highest priority and provided much of the hard information available about the USSR.'[186]

The focus on military capabilities often outweighed considerations of what these capabilities were meant to achieve. Sometimes intentions were inferred from capabilities. The British Defence White Paper of 1955 spoke of Soviet military superiority which was understood by NATO member states as indication for its political objectives.[187] Soviet capabilities were easier to collect than intentions but these also had its difficulties. Examples of this are the bomber and missile gaps of the late 1950s or the differences between UK and US estimates on Soviet missiles.[188] The CIA and military estimates on Soviet military capabilities differed continuously.[189] During the Cold War the United States sometimes overstated and sometimes understated the Soviet threat.[190] All in all, even with the difficulties of threat perception diminishing the simplicity of Cold War intelligence, Western intelligence proved successful: *'In many ways Western intelligence was a success. On observable, actual aspects of Soviet military capabilities it moved from great uncertainty in the 1940s and 1950s to a reasonably good picture from the 1960s onwards, much of it derived from satellite reconnaissance. The official Soviet baseline figures handed over for the SALT, START and CFE arms control agreements of the 1970s and 1980s contained few surprises. The transparency provided by Western intelligence gave reassurance during periods of tension, and played a significant part*

[186] Herman, *Intelligence Power in Peace and War*, 246.

[187] Ibid., 241.

[188] Len Scott, "British Strategic Intelligence and the Cold War," in *The Oxford Handbook of National Security Intelligence*, ed. Loch K. johnson (New York, NY: Oxford University Press, 2010), 150.

[189] Sulick, "Intelligence in the Cold War," 134.

[190] James H. Lebovic, "Perception and Politics in Intelligence Assessment: U.S. Estimates of the Soviet and "Rogue-State" Nuclear Threats," *International Studies Perspectives* 10, no. 4 (2009): 395.

in arms control and the eventual winding down of the conflict. Considering Soviet secrecy, these were no small achievements.'[191]

To conclude, Cold War intelligence was not always simple, but it was positivist. Still, it was not exactly static and unchanging, given major developments within intelligence. The constant Soviet target would best fit the static characterisation. A better characterisation of Cold War intelligence is as a linear story of progress, as the citation above shows.

3.2.2 Peace dividend

With the Cold War ended thoughts of peace dividend and Fukuyama's concept of the end of history began to take hold. With the existential threat of a nuclear armed Soviet Union gone there was no longer a clear focus and priorities in foreign policy, defence and intelligence. Budget cuts were a logical political consequence and posed a real danger to intelligence services. The CIA as well as the German Federal Intelligence Service (Bundesnachrichtendienst, BND) were nominated for abolishment by some politicians.[192] The Dutch foreign intelligence service (Inlichtingendienst Buitenland, IDB) was actually abolished in 1994. By the end of the decade its tasks were taken over by the military intelligence service and the civilian domestic intelligence service.[193]

Budget cuts led to downsizing meaning that a shrinking workforce that was specialised in all things Soviet had to make sense of a post-Cold War world that was to be determined by diverse and more complex policy issues than before.[194] These difficulties were experienced throughout Western intelligence. Budget cuts for defence made US military cut down on tactical intelligence and pass this task to

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[191] Herman, *Intelligence Power in Peace and War*, 242-43.

[192] Wolfgang Krieger, "The German Bundesnachrichtendienst (Bnd): Evolution and Current Policy Issues," in *The Oxford Handbook of National Security Intelligence*, ed. Loch K. johnson (New York, NY: Oxford University Press, 2010), 797; Rhodri Jeffreys-Jones, "The Rise and Fall of the CIA," ibid., ed. Loch K. Johnson, 133.

[193] Dick Engelen, "Mars Door De Tijd Van Een Institutie: Beknopte Geschiedenis Van De AIVD," in *Inlichtingen-En Veiligheidsdiensten*, ed. B.A. de Graaf, E.R. Muller, and J.A. Reijn (Alphen aan den Rijn: Kluwer, 2010), 68; Bob de Graaff and Cees Wiebes, *Villa Maarheeze: De Geschiedenis Van De Inlichtingendienst Buitenland* (Den Haag: Sdu Uitgevers, 1999), 403.

[194] Lowenthal, *Intelligence: From Secrets to Policy*, 272-73.

national intelligence services. The military's request for intelligence gave the intelligence community a new purpose but there were concerns over seconding national security to military operations. Still president Clinton, via presidential decision in 1995, made intelligence support to military operations official priority.[195] This was basically a return to the primary function of intelligence. As long as there has been war, intelligence was meant to support it. The goal of national security is a relatively new one.[196]

A vivid metaphor to describe this post-Cold War uncertainty, and therefore often quoted, is from R. James Woolsey confirmation hearing as nominee for director of Central Intelligence in 1993. Refusing to endorse any immediate budget cuts Woolsey stated that *'We have slain a large dragon. But we live now in a jungle filled with a bewildering variety of poisonous snakes. And in many ways, the dragon was easier to keep track of*'.[197] Many snakes indeed manifested themselves in the 1990s. The Gulf War, the civil war in Rwanda and the Bosnian war are but well known examples of a long list of conflicts that dominated international politics up until the 11th of September 2001.

3.2.3 War on Terror

Though terrorism was no new phenomena by any means, the attacks by Al Qaeda on US soil and the subsequent wars in Afghanistan and Iraq led to Islamic terrorism becoming the focus of the US and other Western nations. The pressure from policy and from society for protection against terrorism made intelligence part of the war on terror(ism), as coined by US president Bush. This provided a frame for intelligence to work in, like containment did, though the war on terror was less defined. For instance, many issues in the post-Cold War period are related. Terrorism, climate change and failed states form interdependencies that are difficult to prioritise. Terrorism also lacks easy to identify structures such as bases or command structures like the large political-military structure of the Soviet Union. During much of the Cold War Soviet capabilities were largely known, but not its intentions. With terrorists it was mostly the other way around.[198] The focus on capabilities, also referred to as bean-counting, is impossible with de-territorialised and networked threats as they

[195] Warner, *The Rise and Fall of Intelligence: An International Security History*, 261.

[196] Treverton, *Reshaping National Intelligence for an Age of Information*, 70.

[197] Douglas Jehl, "C.I.A. Nominee Wary of Budget Cuts," *New York Times*, 3 February 1993.

[198] Lowenthal, *Intelligence: From Secrets to Policy*, 273, 79.

are only identified through their actions.[199] As a result, the practice of intelligence in the context of counterterrorism and counterinsurgency became more complex than it was during the Cold War.

The war on terror eroded several classic divides within intelligence. The transnational feature of Islamic terrorism eroded the organisational separation between foreign and domestic intelligence. It also blurred the divide between investigative services and intelligence services. This is not an easy combination as investigations rely on facts for proof that will hold up in court and intelligence deals in possibilities and probabilities. This brought intelligence into conflict with civil rights and legislative barriers and gave rise to the idea of mass-surveillance by Western democratic states on their own citizens.[200]

The wars in Afghanistan and post-invasion Iraq proved to be difficult for the Western militaries that were geared towards large scale combat operations with a peer rival. The fighting in Afghanistan and Iraq was low-intensity, asymmetric and the enemies – an amorph assembly of insurgents, criminals and terrorists – hid among the population. This led to renewed attention for counterinsurgency and the lessons of colonial conflict. Rupert Smith even advocated a paradigm shift in modern warfare; 'interstate industrial war' had become 'war amongst the people'. This forced military intelligence to make sense of non-military issues such as societal and ethnic factors in a conflict, blurring yet another traditional division.

For military intelligence the invasion of Afghanistan and the occupation of Iraq changed its traditional enemy-centric nature. The unknown cultures for the West that Islamic terrorism hides within were to be navigated with 'population-centric intelligence', 'intelligence-led operations' and 'winning hearts and minds'. [201] These ideas were codified with the new US counterinsurgency field manual (FM 3-24).[202] One of the measures stemming from this doctrine document was the establishment of the US Human Terrain System (HTS). This was a programme by the US Army to

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[199] Baudet et al., "Military Intelligence: From Telling Truth to Power to Bewilderment?," 9.

[200] Ibid., 11-12. Omand, "The Future of Intelligence: What Are the Threats, the Challenges and the Opportunities?," 19.

[201] Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (New York, NY: Vintage, 2008).

[202] "Field Manual 3-24: Counterinsurgency," ed. Headquarters Department of the Army and Headquarters Department of the Navy (Washington, DC 2006).

embed anthropologists and social scientists with units in Iraq and Afghanistan *'to support field commanders by filling their cultural knowledge gap in the current operating environment and providing cultural interpretations of events occurring within their area of operations'*.[203] The concept of human terrain was an approach to understand the complex interplay of culture, tribal politics and local realities.[204] While the system has been abandoned in the US, the Dutch Army still employs human terrain analysts.

All this adaptation was not easy, as exemplified by the report 'Fixing intel: a blueprint for making intelligence relevant in Afghanistan' (Center for a New American Security, 2010). It is a review of the US intelligence effort in Afghanistan, written four years after the introduction of FM 3-24 and three years after HTS started. Co-authored by then director of ISAF intelligence Michael Flynn, it states that *'because the United States has focused the overwhelming majority of collection efforts and analytical brainpower on insurgent groups, our intelligence apparatus still finds itself unable to answer fundamental questions about the environment in which we operate and the people we are trying to protect and persuade'*.[205]

Despite the focus on terrorism in the wake of 9/11, state actors were never completely out of sight. However, with the 'axis of evil' label from the Bush administration they were still viewed through the prism of the war on terror. The focus of intelligence on terrorism, with its non-state character, had to be adjusted again with China and Russia asserting themselves in the international system.

3.2.4 Return to great power politics

The year 2007 marks a turning point in Russian post-Soviet foreign policy. Prior, Russia was seeking ties with the United States and Europe. With the expansion of

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[203] Nathan Finney and "AR", "Human Terrain Team Handbook," (Fort Leavenworth, KS.: Human Terrain System program, 2008), 2.

[204] Dorough-Lewis James, "Investing in Uncertainty: Applying Social Science to Military Operations," in *Social Science Goes to War: The Human Terrain System in Iraq and Afghanistan* (Oxford University Press, 2015); Louise Wiuff Moe and Markus-Michael Müller, eds., *Reconfiguring Intervention: Complexity, Resilience and the 'Local Turn' in Counterinsurgent Warfare* (London: Palgrave Macmillan, 2017).

[205] Michael T. Flynn, Matt Pottinger, and Paul Batchelor, "Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan," Working paper (Washington, DC: Center for a New American Security, 2010), 4.

NATO and the EU Russia retreated into Eurasianism; focussing on former Soviet republics along its Southern borders.[206] However, Western encroachment upon former Soviet states continued, highlighted by the interference with the Ukrainian elections in 2004.[207] Putin reacted in his speech at the 2007 Munich Security Conference. He rejected American unilateralism stating the *US 'overstepped its national borders in every way. This is visible in the economic, political, cultural and educational policies it imposes on other nations'*.[208] After Munich, Russia adopted an aggressive foreign policy with military interventions in Georgia, Ukraine and Syria. It considered itself threatened by NATO enlargement and made this a central feature of policy. This in turn led to Western politicians and militaries constituting a renewed Russian threat to democracy. Though this has a fair degree of truth to it, some nuance is in place: *'Western pundits are pessimistic about the West's ability to resist what they view as a resurgent Russia. The reality today is otherwise: Putin is on the defensive […] Democratization has already doubled the number of democratic states over the past four decades and […] there is no indication that it will stop altogether. The West's strategic position has improved enormously since the end of the Cold War, while Russia is struggling to hold on in Syria and parts of Ukraine.'*[209]

Still, Russian intelligence, building on the legacy of Soviet 'active measures', is actively trying to disrupt Western democracies. The interference with the 2016 US presidential election, the assassination attempt on Sergei Skripal – a Russian intelligence officer turned British agent – and the attempted hacking of the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Netherlands are well known examples. This makes Russia (again) a top priority for Western intelligence.

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[206] Anuradha M. Chenoy and Rajan Kumar, *Re-Emerging Russia: Structures, Institutions and Processes* (Singapore: Palgrave Macmillan, 2017), 217.

[207] Andrew Wilson, "Ukraine's Orange Revolution, Ngos and the Role of the West*," *Cambridge Review of International Affairs* 19, no. 1 (2006).

[208] Vladimir Putin, 'Speech and the Following Discussion at the Munich Conference on Security Policy' (2007), Kremlin website, accessed 12-7-2020. http://en.kremlin.ru/events/president/transcripts/24034

[209] Maarten Rothman, "On the Instrumentality of Soft Power; or Putin against Democracy Promotion," *Winning without killing: the strategic and operational utility of non-kinetic capabilities in crises* (2017): 52.

Contrary to Russian foreign policy, China – at least seemingly – tries to avoid creating international tensions. Its staggering rise as a world power in the last few decades is based on the concept of 'Peaceful Development' that seeks to foster mutually beneficial relations with other powers to maintain economic growth. Peaceful Development guides foreign policy in such a way that it is seen as China's grand strategy.[210] Despite this intention China is becoming more assertive, also militarily, to leverage power in the international arena. Visible actions are growing pressure on Taiwan, the re-kindling of the border dispute with India, territorial claims in the South China Sea, and a growing presence in Africa.

However, independent of its international conduct, the sheer economic growth in combination with military investment is too threatening for its neighbours and established political (super)powers.[211] This alone justifies China as an intelligence target. However, China also seeks acquisition of foreign science and technology to accelerate its economic and military modernisation.[212] Chinese collection is large in its scope and scale. It collects on traditional governmental and military targets but also on universities and companies. Collection via Chinese students studying abroad and cyber espionage are often invoked examples.[213]

A re-emergent Russia and a more assertive China do not fit the frame of the war on terror or the axis of evil. The main focus of intelligence shifted back from non-state actors and 'rogue' states to power rivalry between major states. Their influence on global politics forces Western intelligence to analyse them in their own right. At the same time the struggle against terrorism continues. This underlines the observation

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[210] Lukas K. Danner, *China's Grand Strategy: Contradictory Foreign Policy?* (Cham, Switzerland: Palgrave MacMillan, 2018).

[211] Edward Luttwak, *The Rise of China Vs. The Logic of Strategy* (Cambridge, MA: Belknap Press of Harvard University Press, 2012).

[212] Nicholas Eftimiades, "On the Question of Chinese Espionage," *Brown J. World Aff.* 26 (2019); David Snetselaar, "Dreams Lab: Assembling Knowledge Security in Sino-Dutch Research Collaborations," *European Security* 32, no. 2 (2023).

[213] William C. Hannas, James C. Mulvenon, and Anna B. Puglisi, *Chinese Industrial Espionage: Technology Acquisition and Military Modernization* (London: Routledge, 2013). Peter Mattis, "A Guide to Chinese Intelligence Operations," (18-8-2015) Warontherocks.com; Peter Mattis and Matthew Brazil, *Chinese Communist Espionage: An Intelligence Primer* (Naval Institute Press, 2019).

of Lahneman, mentioned in the first chapter, that a new post-Cold War intelligence paradigm should incorporate both state and non-state actors.

3.3 Technology

The second driver of the framework of this chapter concerns the role of technology. Military and civilian technologies are not separate entities. There is a high degree of interplay and dual use. Technology therefore impacts economic, political, military and cultural developments.[214] As such, it is also inherently part of intelligence with collection, from Cold War multi-platform IMINT to current cyber espionage, almost equating technology. This is emphasised by the primacy of collection over direction and analysis. Driven by the idea that more information reduces uncertainty, technical collection often leads to an overload that exceeds the focus of the questions and the capacity of analysis. Another aspect of this primacy is when direction is based on previous collection. Technical collection systems therefore drive and consume by far the largest part of intelligence budgets.[215] Technology also has an impact on the external intelligence environment. It gives an adversary new capabilities, the focal point for intelligence to determine its threat. All this makes technology a strong driving force for intelligence.[216] This section is divided in two parts: from machines to computers, and the information revolution.

3.3.1 From machines to computers

In the Cold War the Soviet Union was a 'closed target' which forced intelligence to rely on remote technical collection systems.[217] Ships and planes were fitted with IMINT and SIGINT sensors to spy on the Soviet Union. Perhaps the most famous example is the U2 spy plane of the late 1950's with its characteristic look and its legacy of disproving the bomber gap. It was not only the US that performed aerial reconnaissance into the Soviet Union. The U2 mission that disproved the bomber gap was flown by a British pilot on a British mission. Sweden, France and Germany

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[214] Buzan and Hansen, *The Evolution of International Security Studies*, 53-54.

[215] Agrell and Treverton, *National Intelligence and Science: Beyond the Great Divide in Analysis and Policy*, 39-43. Lowenthal, *Intelligence: From Secrets to Policy*, 63-64.

[216] See also: Agrell, "The Next 100 Years?: Reflections on the Future of Intelligence," 138-39; Thomas Quiggin, *Seeing the Invisible: National Security Intelligence in an Uncertain Age* (World Scientific, 2007), 36-41.

[217] Graham and Hansen, *Spy Satellites: And Other Intelligence Technologies That Changed History*, 4.

also performed aerial reconnaissance missions. The launch of the Russian Sputnik satellite in 1957 heralded the next decade that would be characterised by satellite espionage from space. In a famous example satellite IMINT, corroborated by ELINT and HUMINT, uncovered the perceived missile gap of Soviet ICBM. By the 1980s satellites outperformed aerial IMINT.[218] All in all, overhead reconnaissance was the *'most important technological development'* of Cold War intelligence.[219] The development of unmanned aerial vehicles (UAV) in the twenty-first century, that are cheaper and faster on target than satellites, balance the dominance of space-based IMINT and SIGINT.[220]

The Vietnam War brought the realisation that computerised systems of surveillance, targeting, and command and control will greatly increase combat power.[221] However, long turnaround times for national IMINT and SIGINT systems made them unsuited to provide actionable intelligence for battlefield commanders until near the end of the Cold War.[222] The introduction of precision guided ammunition forced intelligence to deliver targets faster and better. By the late 1970s the US military realised its command and control system was unsuited to make effective use of new precision weapons. The original term of 'command and control' (C2) was complemented with 'communications', abbreviated as C3. In the 1990s, against the background of the Revolution in Military Affairs (RMA), it became C4 with the addition of 'computers'. Later on 'intelligence, surveillance and reconnaissance' were added as well, making the abbreviation C4ISR. This laid the basis for the armed forces to revolutionise the old idea of command and control by seeing it as an integrated web of rapid, coordinated information flows. This became known as Network-Centric Warfare (NCW), which was heavily influenced by complexity (see Chapter 4). Modern information and communication systems, and better sensors improve military decision making. They enable distribution of information on the environment and enemy more widely and faster than before. This means that sensor-to-shooter timings are shortened, opponents can be outmanoeuvred and hit with precision munition. Vivid examples are the operations Desert Storm and Iraqi Freedom. The new precision weapons also changes intelligence at the strategic level.

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[218] John Hughes-Wilson, *On Intelligence* (London: Constable, 2017), 178-84.

[219] Sulick, "Intelligence in the Cold War," 131.

[220] Hughes-Wilson, *On Intelligence*, 197.

[221] Warner, *The Rise and Fall of Intelligence: An International Security History*, 196.

[222] Treverton, *Reshaping National Intelligence for an Age of Information*, 13; Warner, "The Rise of the US Intelligence System, 1917–1977," 114.

A wide range of targets opened up for the improved weapons, forcing intelligence to prioritise targets.[223]

The role of intelligence in all this is not without critique either. Regarding intelligence as reliable, transparent, and on-call means the boundary with target acquisition becomes blurred. Intelligence is less concerned with uncertainty and the time-consuming process of understanding the operational environment but instead focuses only on finding targets regardless of context.[224] The concepts of C4ISR and network centric warfare are very much positivist: *'The assumption is that intelligence will be an engine fit for a fine-tuned, high-performance, machine – reliable, understood, useful, usable and on-call. One can learn exactly what one wants to know when one needs to do so, and verify its accuracy with certainty and speed. The truth and only the truth can be known. It is further assumed that intelligence will show what should be done and what will happen if one does. According to this line of thought, action taken on knowledge will have precisely the effect one intends, nothing more or less.'*[225]

Notwithstanding battlefield successes, another implication for intelligence became clear in the post-invasion insurgency after Iraqi Freedom and in the war in Afghanistan. The overreliance on technical collection led to an apparent lack of human intelligence sources. Furthermore, war is a social phenomenon and the complexity of culture, language, and religion of the people of Iraq and Afghanistan cannot be understood through technical collection alone.[226] This was the real problem the human terrain system from section 3.2.3 was to address.

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[223] Lahneman, *Keeping U.S. Intelligence Effective: The Need for a Revolution in Intelligence Affairs*, 64-66; Warner, *The Rise and Fall of Intelligence: An International Security History*, 240.

[224] John Ferris, "Netcentric Warfare, C4ISR and Information Operations: Towards a Revolution in Military Intelligence?," *Intelligence and National Security* 19, no. 2 (2004): 204.

[225] Ibid., 201.

[226] Kjeld Galster, *The Face of the Foe: Pitfalls and Perspectives of Military Intelligence* (Kingston, ON: Legacy Book Press, 2015), 176-85.

3.3.2 The Information Revolution

Next to fundamentally altering traditional command and control, and envisioning concepts of armed forces as information networks with faster and better decision making and targeting, the Information Revolution has other major implications. The exponential growth of data and information and better technologies to harvest them has all the danger of overload for intelligence.[227] US general Vincent Stewart, former director of the DIA formulated the problem clearly: *'We are collecting more data today than we can effectively consume. There is simply so much information that we struggle to make sense of it. What we are able to collect, we can't process. And what we can process, we can't effectively disseminate'.*[228]

Internet and mobile communication confronted intelligence with social media, the open source domain and cyberspace. This provided an unprecedented opportunity to follow individuals online and to improve and enlarge the role of open source intelligence. A vivid example is the US program Total Information Awareness that aimed to correlate vast amounts of information to look for dangerous individuals and terrorist plots. All this readily available data and (social) media blur the collector/analyst and the producer/consumer distinctions.[229] Traditional intelligence consumers, from politicians to commanders, themselves can retrieve information and engage through the internet to try to understand the complex world. The increasing volume and value of data and information created a new domain, cyberspace, in addition to the traditional warfighting domains of land, sea and air. For intelligence this created new opportunities for espionage and covert action. Engaging human sources online led to the new terms cyber HUMINT, and cyberattacks – being difficult to attribute – became a new method of covert action.

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[227] Tess Horlings, Roy Lindelauf, and Sebastiaan Rietjens, "Battling Information Overload in Military Intelligence & Security Organisations," in *Towards a Data-Driven Military. A Multidisciplinary Perspective.*, ed. Peter B.M.J. Pijpers, Mark Voskuijl, and Robert M. Beeres, Netherlands Annual Review of Military Science (Leiden: Leiden University Press, 2022).

[228] Kathleen M. Vogel, "The Impact of Technology on Intelligence Analysis," in *A Research Agenda for Intelligence Studies and Government*, ed. Robert Dover, Huw Dylan, and Michael S Goodman (Cheltenham: Edward Elgar, 2022), 114.

[229] Agrell and Treverton, *National Intelligence and Science: Beyond the Great Divide in Analysis and Policy*, 135.

However, while cyber presents new ways of intelligence collection and operations, all the opportunities and dangers of cyberspace are not yet clearly understood.[230]

The exponential growth of data, be it bulk or big, provides a problem for the human intelligence analyst, but the application of algorithms might help to harvest its benefits for intelligence analysis. However, as of yet, much detail on what current intelligence applications are – as well as studies of it – are lacking.[231] What is clear is that incorporation of algorithms creates new challenges as well. What will be the role of the human analyst? How to change recruitment and training?[232] The information revolution is challenging intelligence organisations beyond data overload and problems of analysis. Zegart distinguishes three major challenges[233]: 1.) Technology provides new methods, not bounded by geography, for threat actors. In this it also empowers small non-state actors. 2.) While intelligence agencies struggle with data overload, the democratisation of data leads to new intelligence producers from individual citizens to companies. Intelligence now has competitors in the sense-making business it once had monopoly over. 3.) The need for technological innovation forces intelligence organisations to engage with the outside world and leave traditional secrecy behind. The growth of publicly available information also pulls intelligence away from relying only on traditional secret intelligence. The full potential of big data and artificial intelligence in a military context remains to be seen.[234] Still, artificial intelligence is already used by different US intelligence agencies to optimise the processing of information with, for example,

[230] e.g. Maarten Rothman and Th B. F. M. Brinkel, "Of Snoops and Pirates: Competing Discourses of Cyber Security," *Cyber warfare: critical perspectives* (2012).

[231] Tess Horlings, "Dealing with Data: Coming to Grips with the Information Age in Intelligence Studies Journals," *Intelligence and National Security* 38, no. 3 (2023).

[232] Vogel, "The Impact of Technology on Intelligence Analysis."

[233] Amy B Zegart, "Spies, Lies, and Algorithms," in *Spies, Lies, and Algorithms* (Princeton: Princeton University Press, 2022), 3-10.

[234] André J Hoogstrate, "The Effect of Big Data and Ai on Forecasting in Defence and Military Applications," in *Towards a Data-Driven Military. A Multidisciplinary Perspective.*, ed. Peter B.M.J. Pijpers, Mark Voskuijl, and Robert M. Beeres, Netherlands Annual Review of Military Science (Leiden: Leiden University Press, 2022), 145-46.

automatic translation or dissemination of reporting on threats.[235] In another example, the US has established the Algorithmic Warfare Cross Functional Team, also known as Project Maven, to integrate big data and machine learning into the military. Its first mission, in 2017, was to process the sheer amount of surveillance data in the campaign against the Islamic State into actionable intelligence.[236]

Twenty-first century communication and digital technological developments are obvious drivers for change, as technology is in general. There is however, arguably, a growing impact of technological factors in today's global world. There is a general sense that some kind of threshold is surpassed in technological importance and prominence. Yet, Rathmell tempers the technological enthusiasm of advocates of an Information Age: *'It is not yet clear whether telematics and digital technologies are 'merely' transformative technologies that will change social, economic and political structures, as did the car, telephone and television earlier this century, or whether they truly represent an information revolution along the lines of the adoption of the Roman alphabet or the introduction of moveable type. Advocates of the concept of an 'Information Age' would have us believe the latter. They argue that, as with previous information revolutions, the widespread adoption of cyber and digital technologies will revolutionize our societies in ways we cannot yet conceive.'*[237]

The cultural implication of this is profound. If knowledge is increasing as a factor of production compared to capital and labour, knowledge workers become empowered. Here is a direct link with intelligence transformation. However, Rathmell observes that *'although it represents the epitome of a knowledge industry, the intelligence community is only gradually coming to grips with the implications of this profound cultural and structural transformation'*.[238]

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[235] Patrick Tucker, "Spies Like AI: The Future of Artificial Intelligence for the US Intelligence Community" (27-1-2020), Defenseone.com.

[236] Cheryl Pellerin, "Project Maven to Deploy Computer Algorithms to War Zone by Year's End" (21-7-2017), US Department of Defense website, www.defense.gov; Marcus Weisgerber, "The Pentagon's New Algorithmic Warfare Cell Gets Its First Mission: Hunt Isis" (14-5-2017), Defenseone.com.

[237] Rathmell, "Towards Postmodern Intelligence," 98.

[238] Ibid., 99.

3.4 Events

The third category of the framework, events, are the most obvious intelligence drivers. To put it more strongly, they are the *raison d'être* of intelligence. Intelligence must inform decision-makers on threatening events and support policy to address these threats. As such, events are often framed as intelligence failure or success. The reflex is then often to focus research on e.g. organisational, analytic or legislative reform to address these events. This implies the assumption that events are a causal force that claims much influence over intelligence. It disregards other driving factors. Buzan and Hansen therefore see events in a 'constructivist manner' and point to the *'interplay between events and the other driving forces'*.[239] Events can be single, one time occurrences like a terrorist attack, or events can unfold over time in the way that environmental concerns have moved from the background to the foreground in public and policy debate.

The events examined in this section will not form a complete overview of intelligence failures or successes. Only a small selection will be regarded for their impact on intelligence. Taking from Warner, as mentioned previously, that intelligence development stagnated in de mid-1970s, the wars in Korea and Vietnam together with the Cuban Missile Crisis will serve to cover the formative Cold War period of intelligence. The 21st century transition to the post-Cold War period will be exemplified by the terrorist attacks on 9/11, Iraq's alleged Weapons of Mass Destruction and the Russian intervention in Ukraine in 2014.

3.4.1 Formative Cold War events: Korea and Vietnam Wars, and the Cuban Missile Crisis

The invasion of South Korea by North Korea was not the only intelligence failure of the Korean War. Both US and British intelligence also missed clues about Chinese intervention.[240] Despite explicit Chinese warnings not to cross the 38th parallel or risk Chinese intervention, the capture of Chinese soldiers, and combat with Chinese troops inside North-Korea the US Far East Command in early November 1950 only assessed Chinese intervention as *'distinctly possible'*.[241] Meanwhile around 300.000 Chinese troops had crossed into North-Korea and by the end of December had driven

[239] Buzan and Hansen, *The Evolution of International Security Studies*, 55.

[240] Percy Cradock, *Know Your Enemy: How the Joint Intelligence Committee Saw the World* (London: John Murray, 2002), 100-01.

[241] Harvey A. DeWeerd, "Strategic Surprise in the Korean War," (Santa Monica, CA: Rand Corporation, 1962), 20-25.

out US and UN troops. What did not help was that McArthur kept the newly created CIA out of theatre intelligence.[242] This lack of connection was exemplary for the overall lack of intelligence cooperation or coordination during the Korea War.[243] There was some change in april 1951 when general MacArthur was relieved of command and his successor general Ridgway brought in the CIA.[244] Still, only in 1952 did intelligence become all-source.[245] Both intelligence failures of the war, the North Korean invasion and Chinese intervention, would have a lasting impact on US intelligence leading to the establishment of a global warning system and warning intelligence as a discipline, as described in section 3.2.1.

The Vietnam War saw better intelligence connection, though this had its own intelligence problems. The CIA disagreed with the military assessments of North Vietnamese troop strength.[246] Furthermore, providing intelligence to the president as well as battlefield commanders proved difficult and enemy intentions were still difficult to ascertain, leading to many operational and tactical surprises despite good tactical SIGINT.[247] The most famous surprise is the Tet offensive, though a military defeat for North-Vietnam it was an intelligence failure for the US.[248] Overall, the intelligence apparatus was too big, too slow and too compartmentalised.[249] The war was a technological turning point as it was the first time computer technologies were integrated into almost all aspects of the military.[250] A good example of the technological sophistication is the Hamlet Evaluation System (HES) designed to provide an estimate of Vietcong and/or allied control over the South-Vietnamese

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[242] Bruce O. Riedel, *JFK's Forgotten Crisis: Tibet, the CIA, and Sino-Indian War* (Washington, D.C.: Brookings Institution Press, 2015), 14.

[243] Matthew Aid, "US Humint and Comint in the Korean War: From the Approach of War to the Chinese Intervention," *Intelligence and National Security* 14, no. 4 (1999): 18.

[244] Riedel, *JFK's Forgotten Crisis: Tibet, the CIA, and Sino-Indian War*, 16.

[245] Warner, *The Rise and Fall of Intelligence: An International Security History*, 147.

[246] Sulick, "Intelligence in the Cold War," 134.

[247] Warner, "The Rise of the US Intelligence System, 1917–1977," 116.

[248] James J. Wirtz, *The Tet Offensive: Intelligence Failure in War* (Ithaca, NY: Cornell University Press, 1991).

[249] Hughes-Wilson, *On Intelligence*, 203.

[250] Oliver Belcher, "Sensing, Territory, Population: Computation, Embodied Sensors, and Hamlet Control in the Vietnam War," *Security Dialogue* 50, no. 5 (2019): 417.

population at the level of its smallest population units, the village and the hamlet, based on 140 indicators.[251] Though there is a great deal of criticism on HES, several recent authors state it did capture the complexity of population dynamics.[252] Though the understanding of social phenomena would soon be forgotten after Vietnam, it would come back to haunt intelligence in the next century.

The hot wars in Korea and Vietnam and the Cold War with the Soviet Union were difficult to manage at the same time. Though intelligence cooperation increased, the joint intelligence successes from the Second World War were not repeated.[253] The growing costs of intelligence (technology) related poorly to its functioning in e.g. Vietnam. President Nixon ordered a commission, led by James Schlesinger, to investigate options for reform. The report, titled 'A Review of the Intelligence Community' is often referred to as the 'Schlesinger report'. It states that the cost of intelligence has *'almost doubled' from 1960 to 1970 and that collection saw 'spectacular increases'*. This *'greatly improved knowledge about the military capabilities of potential enemies', however it did not bring 'a similar reduction in […] uncertainty about the intentions, doctrines and political processes of foreign powers'*.[254] The solution would be to centralise budgeting and programming, this centralising feature would become the dominant mode of intelligence reform for years to come.[255]

Contrary to the intelligence failures in the Korea and Vietnam War, the Cuban Missile Crisis of October 1962 is commonly seen as an intelligence success with the discovery of Soviet ballistic missiles on Cuba by an U2 spy plane. However, the success narrative only holds when the period prior to the discovery is not reviewed too critical. The pre-crisis record of intelligence, with intelligence estimates repeatedly

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[251] Stathis N. Kalyvas and Matthew Adam Kocher, "The Dynamics of Violence in Vietnam: An Analysis of the Hamlet Evaluation System (Hes)," *Journal of Peace Research* 46, no. 3 (2009): 340.

[252] Belcher, "Sensing, Territory, Population: Computation, Embodied Sensors, and Hamlet Control in the Vietnam War," 419; Kalyvas and Kocher, "The Dynamics of Violence in Vietnam: An Analysis of the Hamlet Evaluation System (Hes)," 341.

[253] Warner, "The Rise of the US Intelligence System, 1917–1977," 114.

[254] James R. Schlesinger, "A Review of the Intelligence Community," ed. Office of Management and Budget (1971), 1.

[255] Warner, "The Rise of the US Intelligence System, 1917–1977," 117.

dismissing the possibility of Soviet military build-up on Cuba, can be seen as a warning failure.[256] The reason for this was the fragmented intelligence effort with many institutional boundaries preventing the accumulation of found signals. Zegart, notes this is not unique to the Cuban Missile Crisis as a parallel can be drawn with pre-9/11 intelligence.[257] What was unique to the crisis was the comprehensive and intensive Russian deception.[258] The eventual discovery of the Soviet missiles was done by IMINT, however it operated in the context of SIGINT (increased Russian shipments in combination with unusual communication patterns) and HUMINT (reports on planned missile placements by intelligence colonel Penkovsky, the Soviet source who also debunked the missile gap).[259] This established the lesson that good intelligence requires multiple sources from multiple intelligence disciplines.[260]

3.4.2 Transition to the 21st Century: 9/11, Iraq WMD, and the Russian annexation of Crimea

The impact of the terrorist attacks on 11 September 2001 was of such a scale that it quickly leads to comparison with Pearl Harbor, the constitutive event of US intelligence.[261] Like Pearl Harbor, 9/11 had a profound impact on intelligence and led to structural reforms. Furthermore, Al-Qaeda and the attacks can be seen as complex phenomena that emerged from an increasingly complex world.[262] The attacks have

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[256] Amy B. Zegart, "The Cuban Missile Crisis as Intelligence Failure," *Policy Review*, no. 175 (2012).

[257] Ibid., 30-34.

[258] James H Hansen, "Soviet Deception in the Cuban Missile Crisis," *Studies in Intelligence* 46, no. 1 (2002).

[259] Sulick, "Intelligence in the Cold War," 130.

[260] Joseph Caddell, "Discovering Soviet Missiles in Cuba: How Intelligence Collection Relates to Analysis and Policy" (19-10-2017), Warontherocks.com.

[261] For example, see: Fred L. Borch, "Comparing Pearl Harbor and "9/11": Intelligence Failure? American Unpreparedness? Military Responsibility?," *The Journal of Military History* 67, no. 3 (2003); James J. Wirtz, "DéJà Vu?: Comparing Pearl Harbor and September 11," *Harvard International Review* 24, no. 3 (2002).

[262] Antoine J. Bousquet, "Complexity Theory and the War on Terror: Understanding the Self-Organising Dynamics of Leaderless Jihad," *Journal of international relations and development* (2012); Karin Knorr Cetina, "Complex Global Microstructures: The New Terrorist Societies," *Theory, Culture & Society* 22, no. 5 (2005); John Urry, "The Global Complexities of September 11th," *Theory, Culture and Society* 19, no. 4 (2002).

been widely investigated by two official commissions and many practitioners, scholars and journalists. This multitude of sources are impossible to briefly discuss here. Dahl, however, provides an apt summarising description stating that all these investigations follow the *'conventional wisdom about how intelligence fails'*: *'There had been warning signals about the threat from bin Laden and al-Qaeda, but these warnings were misunderstood or ignored in an intelligence failure unmatched by any in American history since Pearl Harbor. The reasons behind this failure - the reasons why the warnings were ignored - have been hotly debated. But the standard argument, expressed in the report of the 9/11 Commission, is that intelligence and national security officials lacked the imagination to ''connect the dots'' and make sense of the information that was available.'*[263]

It is good to distinguish between strategic and tactical warning intelligence here. Most research concludes the real problem was not with strategic warning; the more abstract and longer term indications of al-Qaeda's intentions. Where the system failed was with tactical warning intelligence; clear and distinct signals of an impending attack. Still, *'in the mission to provide usable warning, performance before September 11 failed in all phases of the intelligence cycle'*.[264] The failure was caused by several interconnected organisational obstacles such as poor information sharing, decentralisation and lacking coordination.[265]

The 9/11 commission concluded that intelligence tried to solve the Al Qaeda problem with Cold War capabilities. These capabilities were insufficient and not much improvement had taken place. The intelligence failure of 9/11 is part of *'the government's broader inability to adapt how it manages problems to the new challenges of the twenty-first century'*, especially transnational ones.[266] Hughes-Wilson describes the problem that *'After all the money, all the lessons of the past and all the work […] American intelligence was still, sixty years after Pearl Harbor, in*

[263] Erik J. Dahl, *Intelligence and Surprise Attack: Failure and Success from Pearl Harbor to 9/11 and Beyond* (Washington, DC: Georgetown University Press, 2013), 128.

[264] Richard K. Betts, "Two Faces of Intelligence Failure: September 11 and Iraq's Missing WMD," *Political Science Quarterly* 122, no. 4 (2008): 587.

[265] Ibid., 591; Thomas E. Copeland, *Fool Me Twice: Intelligence Failure and Mass Casualty Terrorism* (Leiden ;: Martinus Nijhoff, 2007), 214.

[266] National commission on terrorist attacks upon the United States, "The 9/11 Commission Report," (2004), 350-53.

an uncoordinated mess'.[267] Though not untrue, this is a rather orthodox view of the problem being a fault in the system and not the system itself. This is in stark contrast with the literature on paradigm shift that advocates a new system for intelligence. As such, the RIA debate was accelerated by 9/11.[268]

The reforms of 2004 fit the centralisation trend of US intelligence. A Director of National Intelligence (DNI) was created to oversee all the intelligence agencies, as recommended by the 9/11 commission. Previously, the CIA director held a dual role as Director of Central Intelligence (DCI) to oversee the intelligence agencies but this was deemed too much for one person given the coordination problems surrounding 9/11. The second reform was the establishment of a National Counterterrorism Center.

While 9/11 was caused by a failure to connect the dots, the intelligence failure regarding Iraq's weapons of mass destruction was caused by connecting too many dots.[269] In other words, intelligence jumped to conclusions by lack of rigour. It was not a purely American intelligence failure as *'all intelligence services in all countries and most private analysts came to roughly the same conclusions'* that WMDs were present and/or developed.[270] This false conclusion was mainly based on *'Iraqi behavior and the motives assumed to be consistent with that behavior'*.[271] Iraq often did not cooperate and obstructed UN weapon inspections and therefore was suspected of hiding something. As the US commission tasked with investigating the matter observed: *'When someone acts like he is hiding something, it is hard to entertain the conclusion that he really has nothing to hide.'*[272] Furthermore, Iraq had previously surprised the world with its invasion of Kuwait and its strategic weapons program then. The misjudgement on Iraqi WMDs *'was especially striking because it*

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[267] Hughes-Wilson, *On Intelligence*, 402.

[268] Boelens, "The Revolution in Intelligence Affairs: Problem Solved?," 120.

[269] Betts, "Two Faces of Intelligence Failure: September 11 and Iraq's Missing WMD," 596; Lowenthal, *Intelligence: From Secrets to Policy*, 343.

[270] Robert Jervis, "Reports, Politics, and Intelligence Failures: The Case of Iraq," *Journal of Strategic Studies* 29, no. 1 (2006): 18.

[271] Betts, "Two Faces of Intelligence Failure: September 11 and Iraq's Missing WMD," 599.

[272] WMD Commission, "Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction," *Washington, DC: US Government Printing Office* (2005): 155.

dealt with capabilities rather than intentions, and these are supposed to be less difficult to discern'.[273]

Many involved nations performed investigations into their own road to war, the US even two. All these are very different in scope and topics, making it difficult to generalise the reasons for the intelligence failure. Also, the different national intelligence cultures confuse the matter.[274] Furthermore, with Iraq WMDs as a *casus belli* that proved to be false, inquiries were *'steeped in high politics, and played for high stakes'*.[275] For instance, the 'overall commission finding' of the US WMD commission, as it is popularly known, concludes that not only were the intelligence assessments wrong, how they were made and communicated to policy officials is also seriously flawed.[276] The report is very much focussed on the performance of the intelligence community and thus seems to absolve policymakers.[277] The Dutch inquiry (also called Commission Davids) however also criticises the use of intelligence by policy makers stating the intelligence services *'were more reserved in their assessments of the threat posed by Iraq's WMD programme than government ministers were in their communications with the Lower House'*.[278] The British investigation, dubbed the 'Butler Review', looks at the evidence chain from its beginning up to the Joint Intelligence Committee (JIC). Because the JIC consists of both intelligence producers and consumers the British system sees assessment as a government function instead of only an intelligence function. It therefore covers both intelligence and policy issues and suffers to a lesser extent of assessment problems like the American system does. The Butler Review sees flaws in the

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[273] Robert Jervis, *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War* (Ithaca, NY: Cornell University Press, 2010), 123.

[274] e.g. Lawrence J. Lamanna, "Documenting the Differences between American and British Intelligence Reports," *International Journal of Intelligence and CounterIntelligence* 20, no. 4 (2007).

[275] Alex Danchev, "The Reckoning: Official Inquiries and the Iraq War," *Intelligence & National Security* 19, no. 3 (2004): 437.

[276] Commission, "Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction," 557.

[277] Mark Phythian, "The Perfect Intelligence Failure? U.S. Pre-War Intelligence on Iraqi Weapons of Mass Destruction," *Politics & Policy* 34, no. 2 (2006): 401.

[278] English summary in: Commissie van Onderzoek Besluitvorming Irak, "Rapport Commissie Van Onderzoek Besluitvorming Irak," (Amsterdam: Boom, 2010), 531.

intelligence on Iraq specifically and not as endemic failure of the system and provides no explicit recommendations.[279]

The recommendations of the US WMD Commission followed the centralising line and, almost resembling post-9/11 reforms, proposed to grant the DNI more authority and to establish a National Counter Proliferation Center. In the Dutch case the investigative commission observed that the Dutch civilian and military intelligence services did not possess much intelligence from own collection, only from partners. In the case of Iraq the intelligence from partners, mainly US, and therefore suffered from the same problems regarding validity. This led to the realisation that Dutch intelligence should perform collection of their own at least to better be able to relate and asses partner intelligence.[280] An idea that has in it the possibility of far reaching consequences in budget and organisation for a small-power nation as The Netherlands.

Despite the difficulties of generalising from all these investigations, Jervis makes an interesting observation about the intelligence on Iraq and the many investigations. They both *'neglected social science methods, settled for more intuitive but less adequate ways of thinking, and jumped to plausible but misleading conclusions'*.[281] This neglect of social science is observed in that both the intelligence and the investigations *'fail to use the comparative method, ignore the power of asking what evidence should be seen if alternative accounts of the reality being described are correct, neglect the importance of negative evidence, and do not probe the psychology that lay behind many of the inferences, both correct and incorrect'*.[282]

The attacks by al-Qaeda on 9/11 and Iraq's missing WMD are relatively bounded problems, at least *ex post facto*. This is not to simplify the events but non-state terrorism and a state actor's strategic weapons programme can be described with

[279] Philip Davies, "A Critical Look at Britain's Spy Machinery'," *Studies in Intelligence* 49, no. 4 (2005); Lamanna, "Documenting the Differences between American and British Intelligence Reports," 620-21.

[280] Irak, "Rapport Commissie Van Onderzoek Besluitvorming Irak," 336-37; Evaluatiecommissie Wet op de inlichtingen- en veiligheidsdiensten 2002, "Evaluatie Wet Op De Inlichtingen-En Veiligheidsdiensten 2002: Naar Een Nieuwe Balans Tussen Bevoegdheden En Waarborgen," (2013), 9.

[281] Jervis, *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War*, 123.

[282] Ibid., 154-55.

terminology and concepts that were familiar at the time of the events. The Russian invasion of Crimea and the Donbass 2014 is more difficult to label because the Russians used military means but stopped short of conventional, large scale war. Instead they also employed non-military means and non-state proxies in order to blur the lines between peace and war and create general ambiguity regarding the identity, Russian or separatist militias, of units in action.[283] Diplomatic, legal and media campaigns, the mobilisation of local political support among civilian groups, and economic pressures were used to redraw borders while playing at plausible deniability to disable international response and bolster domestic Russian support.[284] In Western perception this constituted a new way of warfare employed by Russia seeking to re-establish itself as a world power. This happened in hindsight as the invasion and annexation of Crimea came as a surprise, and as an intelligence failure. In this context the term Gerasimov Doctrine was introduced by Mark Galeotti in his discussion, and published translation, of an article by Russian Chief of the General Staff Valery Gerasimov. Gerasimov, writing before the Ukrainian events, observes: *'The focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other nonmilitary measures - applied in coordination with the protest potential of the population. All this is supplemented by military means of a concealed character, including carrying out actions of informational conflict and the actions of special-operations forces.'*[285]

With hindsight this resembles the Russian intervention in Ukraine. However, it is important to note that Gerasimov makes observations on the development of

[283] Geir Hågen Karlsen, "Tools of Russian Influence: Information and Propaganda," in *Ukraine and Beyond: Russia's Strategic Security Challenge to Europe*, ed. Janne Haaland Matlary and Tormod Heier (Palgrave Macmillan, 2016), 202; Andrew Mumford and Pascal Carlucci, "Hybrid Warfare: The Continuation of Ambiguity by Other Means," *European Journal of International Security* 8, no. 2 (2023).

[284] Roy Allison, "Russian 'Deniable' Intervention in Ukraine: How and Why Russia Broke the Rules," *International Affairs* 90, no. 6 (2014): 1258.

[285] Valery Gerasimov, "The Value of Science in Prediction," *Military-Industrial Courier* 476, no. 8 (2013). From: Mark Galeotti, "The 'Gerasimov Doctrine' and Russian Non-Linear War" (6-7-2014), inmoscowsshadows.wordpress.com.

current conflicts in general and does not prescribe a new Russian doctrine.[286] The annexation of Crimea and military activities in the Donbass became synonymous with hybrid warfare and the events drove the debate on it.[287] For a large part this was caused by NATO's adoption of the term during the Wales Summit of 2014 in reaction to Russian aggression against Ukraine.[288]

The 2022 full-scale, Russian invasion of Ukraine happened during this research. The first impressions are that several significant intelligence developments took place with regards to disclosure, success, and failure – as seen in the introduction of this research. However, it is too early to tell if they represent a mere acceleration of the drivers in the framework of this research, or if they need their own category. What can be stated is that where the annexation of Crimea caused a focus on hybrid, the 2022 invasion emphasises that large scale conflict – major combat operations against a peer adversary – are still relevant. This challenges NATO and its intelligence organisation to organise for hybrid as well as conventional warfare, something that is reflected in the case study.

3.5 Debate

The fourth field of the analysis framework is about debates. This also marks the transfer from external drivers to internal ones. Buzan and Hansen state that in a positivist model, international security studies evolves progressively, responding to the external drivers only. In this model empirical data would be matched against hypothesis and theories would be confirmed, adjusted or abandoned. The actual progress of international security studies is more conflictual because there are more approaches than a positivist one and the question is if they come to be incommensurable or keep sharing constants between them.[289] In this context Buzan

[286] Mark Galeotti, "The Mythical 'Gerasimov Doctrine' and the Language of Threat," *Critical Studies on Security* 7, no. 2 (2019); "I'm Sorry for Creating the 'Gerasimov Doctrine'," *Foreign Policy* 5 (2018).

[287] Matej Kandrik, "Rethinking Russian Hybrid Warfare," *Perspectives*, no. 7 (2023): 1; Mumford and Carlucci, "Hybrid Warfare: The Continuation of Ambiguity by Other Means," 195; Tobias Sæther, "War of Broken Fraternity: Competing Explanations for the Outbreak of War in Ukraine in 2014," *The Journal of Slavic Military Studies* 36, no. 1 (2023): 34-35.

[288] Libiseller, "'Hybrid Warfare' as an Academic Fashion."

[289] Buzan and Hansen, *The Evolution of International Security Studies*, 57-60.

and Hansen talk about widening and deepening to show the different theoretical perspectives in international security studies. Widening means looking beyond the military sector as the sole domain of security. Deepening means including other referent objects than the state, such as collectives or individuals.[290]

The paradigm shift debate and the emergence of new post-positivist theories from the former chapter are about new perspectives on intelligence in an ontological and epistemological sense. While this is definitely the start of a process of widening and deepening in intelligence, it is as of yet too early to formulate any definitive answer.[291] It remains to be seen if post-positivist approaches will gain traction within intelligence and how dominant positivist intelligence approaches will react to this. The body of literature on this, examined in Chapter 2, is too small to draw any conclusions on coherence for theory or establish schools of thought. Therefore this research aims to contribute to the growing volume of post-positivist approaches to intelligence (see section 2.3).

This current chapter covers many other debate topics, e.g. Cold War intelligence, the influence of technology, and intelligence failure. Many more debates and topics exist but this particular section examines two: the debate around Sherman Kent versus Willmoore Kendall, and intelligence as art or science. Both debates are fundamental and relevant. Kent in some way is the personification of the traditional intelligence system and Kendall provides it with enduring and valid critique. The relation of intelligence to science and/or art is essential to understanding how knowledge is created. As such, both debates provide substance that parallels, or compliments, the debate on paradigms.

Lastly, the adjective 'academic' before debate is left out in this research. This broadens the term 'debate' to include academic as well as professional debate. This better suits the fact that many intelligence academics are former practitioners, including Kent and Kendall.

3.5.1 Kent and Kendall

The first debate is between Sherman Kent and Willmoore Kendall, who are the first intelligence theorists with Kent being regarded as the founding father of intelligence analysis. Both men represent different approaches to intelligence during its

[290] Ibid., 188.

[291] Newbery and Kaunert, "Critical Intelligence Studies: A New Framework for Analysis."

formative period of the mid-1940s. It is a constituted debate, created because Kent and Kendall are opposites on several intelligence issues, most notably the relation between intelligence and policy – and this opposition forms a natural range along which to examine intelligence. It is a debate only in hindsight. Despite working in the same surroundings or organisations at several instances there is not much evidence of interaction.[292] Furthermore, there are other authors that have written on the same topics as Kent, and thus also Kendall.[293] Perhaps, Kent as the founding father of intelligence analysis and Kendall having reviewed his seminal *Strategic Intelligence for American Foreign Policy* (1949) is the only reason the debate largely ignores the other names. Still, even for a constituted debate, Kent and Kendall's opposite views can be helpful to understand the intelligence habitus. Kent heavily influenced intelligence, and still does, as performed by the US and its allies as well.[294] His positivist epistemology and emphasis on applying the scientific method of the natural sciences to social science is still the dominant feature of intelligence.[295] Kendall seems to have some important lessons for how intelligence might be able to change.[296]

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[292] Jack Davis, "The Kent-Kendall Debate of 1949," *Studies in Intelligence* 35, no. 2 (1992): 96.

[293] Marrin, "Improving Intelligence Studies as an Academic Discipline," 271, 73.; Roger Hilsman, "Intelligence and Policy-Making in Foreign Affairs," *World Politics* 5, no. 1 (1952); Thomas L. Hughes, "The Fate of Facts in the World of Men" (paper presented at the Proceedings of the American Society of International Law at its annual meeting, 1969); Klaus Eugen Knorr, "Foreign Intelligence and the Social Sciences," (Center of International Studies, Princeton University, 1964); Washington Platt, *Strategic Intelligence Production: Basic Principles* (Praeger, 1957).

[294] Agrell and Treverton, *National Intelligence and Science: Beyond the Great Divide in Analysis and Policy*, 48.

[295] Graaff, "Intelligence and Intelligence Studies. Time for a Divorce?," 11-12; Marrin, "Analytic Objectivity and Science: Evaluating the US Intelligence Community's Approach to Applied Epistemology," *Intelligence and National Security* 35, no. 3 (2020): 352.

[296] Anthony Olcott, "Revisiting the Legacy: Sherman Kent, Willmoore Kendall, and George Pettee–Strategic Intelligence in the Digital Age," *Studies in intelligence* 53, no. 2 (2009): 21.

A short biography of the two men can shed more light on their different views of intelligence. Kent was an assistant professor of History at Yale University. When war broke out he joined the Research and Analysis Branch of what soon would become the Office of Strategic Services. After the war he took a position at the National War College during which he wrote his famous book on strategic intelligence before joining the CIA in 1950. Before the war Kendall, too, was an assistant professor. His field was political science at the University of Richmond. He joined the war effort taking various positions which were more operational than intelligence. After the war he joined what would become the CIA. In 1947 he became an associate professor of political science at Yale, the same year Kent became a full professor at the History Department. The opposite nature of the Kent Kendall debate is reflected in their backgrounds: history and intelligence (analysis) versus political science and operations.

Kendall reviewed Kent's *Strategic Intelligence for American Foreign Policy* (1949).[297] He criticised Kent's recommendations for improving intelligence as well as his underlaying general theory of intelligence.[298] Kendall dubbed Kent's work not as the book of a reformer. His critique was that it is dominated by a wartime conception of intelligence. Kendall saw Kent's intelligence as too fixated on (potential) enemies to support policy. In doing so it neglected *'the big job – the carving out of United States destiny in the world'*.[299] *'Although Kendall obviously had views about what that destiny should be, he did not take the triumph of those views as a self-evident scientific "fact," as did Kent. Rather he defined that destiny as a belief system'*, according to Olcott.[300]

Kendall also stated the work was based on a *'crassly empirical conception of the research process in the social sciences'*. Because intelligence tends to divide the world into regional analytic responsibilities and staffs it with social scientists a high number of historians will end up in intelligence analysis. Their historic reflex will be to process all incoming information to test hypothesis. The information overload will make analysis a matter of not trying to drown in the sea of information. Instead, Kendall wants analysis to be properly based on the social sciences in that it

[297] Willmoore Kendall, "The Function of Intelligence," *World Politics* 1, no. 4 (1949).

[298] Davis, "The Kent-Kendall Debate of 1949," 95.

[299] Kendall, "The Function of Intelligence," 544, 48.

[300] Olcott, "Revisiting the Legacy: Sherman Kent, Willmoore Kendall, and George Pettee–Strategic Intelligence in the Digital Age," 26.

formulates theory. Then, analysts will be given real-time data from the field and not written reports that are always behind on the unfolding events.[301]

Intelligence's fixation on prediction to prevent surprise stopped short of Kendall's idea of intelligence. He observes that with Kent *'the course of events is conceived not as something you try to influence but as a tape all printed up inside a machine'* and intelligence only reads the tape to policymakers.[302] In his view intelligence should influence in the sense that it helps policy to understand the operative factors on which it can have an impact.[303]

To summarise the differences between Kent and Kendall they are characterised by Olcott as a puzzle and a mystery solver respectively. Kent with his positivist belief in facts and truths sees intelligence problems as missing facts, or puzzle pieces. This is very much the traditional intelligence paradigm, which is no wonder regarding Kent's influence on the profession of intelligence. Contrary, Kendall is more postmodern and sees intelligence problems as mysteries because they exist in a belief system that are *'arbitrary constructions that — importantly — can never be proven to be true or false'*.[304] Another characterisation concerns the proximity of intelligence to policy. For Kent intelligence should be independent and objective and refrain from advise. The desired independence and objectivity intelligence led to the famous motto of 'speaking truth to power'. *'Objectivity is part of the search for truth with its value being absolute […] – the separation of intelligence analysts from policymakers – ensures that the search for truth can continue unimpeded'*, explains Marrin.[305] For Kendall intelligence should actively work together with policy. In the literature this is often captured as the traditionalist and activist models of intelligence.[306]

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[301] Kendall, "The Function of Intelligence," 550-51.

[302] Ibid., 549.

[303] Davis, "The Kent-Kendall Debate of 1949," 95.

[304] Olcott, "Revisiting the Legacy: Sherman Kent, Willmoore Kendall, and George Pettee–Strategic Intelligence in the Digital Age," 27.

[305] Marrin, "Analytic Objectivity and Science: Evaluating the US Intelligence Community's Approach to Applied Epistemology," 352-53.

[306] Uri Bar-Joseph, "Intelligence Intervention in the Politics of Democratic States: The United States," *Israel, and Britain (University Park: Pennsylvania State Press, 1995)* (1995): 23; Arthur S Hulnick, "The Intelligence Producer–Policy Consumer Linkage: A Theoretical Approach," *Intelligence and National Security* 1, no. 2

Against the background of positivist dominance in intelligence and the emergence of post-positivist theories Kendall still seems relevant. Agrell and Treverton state that a bigger role for Kendall might have *'explicitly acknowledged that "us" and our actions cannot be excluded from the analysis'*, established more interaction between policy and intelligence, and might have given more theory or thought to its own business.[307] The insights of Kendall betray a more complex view of intelligence with attention to interaction with operations and policy, and the reflexive idea that there is no objective perspective because the observer influences the perception.

The Kent-Kendall debate is about ontology, epistemology and methodology. It is also about how much influence social sciences should have. The debate was in part formed around policy issues and hereby was concerned with the boundary between the scholar and policy advisor roles, or traditionalist and activist models of intelligence. While Kent and Kendall form perhaps more of a distinction than a true debate, they represent two established positions along which to examine intelligence. All this makes both men highly influential in the debate on intelligence. The relation between intelligence and science, that Kent and Kendall wrote about, is the topic of the next section.

3.5.2 Intelligence as art or science

The question if a discipline or profession is an art or science is fundamental to its pursuit. If it is art, practical and subjective knowledge arrived at by intuition, then learning and improving the discipline is extremely difficult. If a discipline is science, then objective knowledge is created through measurement with structured methods and more easy to learn.[308] The art-or-science approach is therefore a helpful contradiction to investigate intelligence.[309] Still, the science perspective seems to

(1986): 214; Loch K Johnson and James J Wirtz, *Intelligence: The Secret World of Spies: An Anthology*, 3 ed. (Oxford University Press, 2011), 165-66.

[307] Agrell and Treverton, *National Intelligence and Science: Beyond the Great Divide in Analysis and Policy*, 54.

[308] Robert D Folker, *Intelligence Analysis in Theater Joint Intelligence Centers: An Experiment in Applying Structured Methods* (Washington, D.C: Joint Military Intelligence College, 2000), 6.

[309] Josh Kerbel, "Lost for Words: The Intelligence Community's Struggle to Find Its Voice," *Parameters* 38, no. 2 (2008): 103-05; Stephen Marrin, *Improving Intelligence Analysis: Bridging the Gap between Scholarship and Practice* (Milton Park, Abingdon, Oxon: Routledge, 2012); Julian Richards, *The Art and*

have the upper hand. Within intelligence, natural sciences play a major part in technical processes and collection disciplines. These, however, have little to offer to understand intelligence as a whole. As a form of knowledge production intelligence lacks an artificial, closed system for controlled experiments. Social science, carried out in open systems where change is constant, seems more suitable for studying intelligence and, stated more specifically, intelligence analysis.[310]

Wirtz states the US, and other countries such as the UK and Israel, developed an 'intelligence paradigm' that is *'an effort to apply analytic methodologies and insights drawn from the social sciences'*.[311] Marrin shows that the literature mainly sees intelligence as a (social) science, not as art. Starting with Kent's *Strategic Intelligence for American Foreign Policy* (1949) much foundational literature is an approximation of the scientific method where data is collected, hypotheses are formed and tested, and conclusions based on the foregoing are drawn.[312] With this, the scientific ethos of objectivity, along with independence, has also been incorporated in intelligence analysis. The most exemplary form of intelligence (analysis) as social science is the use of Structured Analytic Techniques (SATs). These are techniques, adopted from social science to structure thinking and to reduce biases.[313] In a way they are meant to guarantee the objectivity in intelligence.

Science of Intelligence Analysis (Oxford ;: Oxford University Press, 2010); Itai Shapira, "Strategic Intelligence as an Art and a Science: Creating and Using Conceptual Frameworks," *Intelligence and National Security* 35, no. 2 (2020).

[310] Treverton et al., "Toward a Theory of Intelligence: Workshop Report," 6.

[311] James J. Wirtz, "The American Approach to Intelligence Studies," in *Handbook of Intelligence Studies*, ed. Loch K. Johnson (Routledge, 2009), 31.

[312] Stephen Marrin, "Is Intelligence Analysis an Art or a Science?," *International Journal of Intelligence and CounterIntelligence* 25, no. 3 (2012): 530. Marrin bases his article for a large part on an lenghty e-mail exchange between member of the International Association for Intelligence Education (IAFIE). For reasons of clarity Marrin's article is referenced and not the primary (e-mail) sources; See also: "Modeling Intelligence Analysis on the Social Sciences," in *Handbook of Intelligence Studies*, ed. loch K. Johnson (Routledge, 2009).

[313] Richards J. Heuer and Randolph H. Pherson, *Structured Analytic Techniques for Intelligence Analysis*, Second edition. ed. (Washington, DC: CQ Press, 2015); Morgan D Jones, *The Thinker's Toolkit: Fourteen Powerful Techniques for Problem Solving* (Crown Business, 1998); "Quick Wins for Busy Analysts," ed.

There are however several reservations to be made when intelligence is equated with (social) science. Intelligence analysis is not repeatable like scientific experiments are. Chances are, different analysts working with the same data and following the same methodology will end up with different outcomes. Furthermore, with intelligence problems the effects of variables, or even the variables themselves, are unpredictable. Still, to some extent this reflects the limitations of social science in general.[314] Intelligence however, differs in several specific issues from science. It is meant to be relevant, timely and actionable from the perspective of a specific consumer. Intelligence is not a scientific search for some ground truth but the production of practical wisdom.[315] Furthermore, with intelligence the subject of study often takes measures to avoid being analysed correctly by adapting its behaviour and/or spreading false information, known as denial and deception.

Next to these caveats, intelligence as, or borrowing from, social science is met with critique. Several publications question the science of SATs.[316] Agrell labels intelligence a protoscience because it lacks a comprehensive set of theories, a scientific discourse, and self-reflection. It needs to become an *'applied science with an open culture in which competing interpretations are the norm, not the (barely tolerated) exception'*.[317] Cooper states that *'analysis falls far short of being a "scientific method" […] this view of science itself is "scientism," which fails to*

Defence Intelligence (London: United Kingdom Ministry of Defence, 2013); "A Tradecraft Primer: Structured Analytic Techniques for Improving Intelligence Analysis," ed. Center for the Study of Intelligence (Washington, D.C.: Central Intelligence Agency, 2009).

[314] Marrin, "Is Intelligence Analysis an Art or a Science?," 532.

[315] Werd, "Critical Intelligence: Analysis by Contrasting Narratives: Identifying and Analyzing the Most Relevant Truths," 16.

[316] e.g. Stephen J. Artner, Richard. Girven, and James B. Bruce, "Assessing the Value of Structured Analytic Techniques in the US Intelligence Community," (Rand Corporation, 2016); Stephen J. Coulthart, "An Evidence-Based Evaluation of 12 Core Structured Analytic Techniques," *The International Journal of Intelligence and Counter Intelligence* 30, no. 2 (2017); Mandeep K. Dhami, Ian K. Belton, and David R. Mandel, "The "Analysis of Competing Hypotheses" in Intelligence Analysis," *Applied Cognitive Psychology* 33, no. 6 (2019).

[317] Agrell, "Intelligence Analysis after the Cold War," 94, 113.

recognize the important role of less "rational" and less "scientific" elements, such as imagination and intuition.'[318]

Another critique, by Bang, is that intelligence as social science is mainly about qualitative methods with quantitative methods seen as unsuited.[319] According to Bang this is based on doubts of scientific reliability and validity. There are concerns regarding data quality, data scarcity, supposedly unquantifiable data or quantitative methods not being suited for intelligence, a negative trade-off with much needed qualitative methods, or the assumption war is too complex to quantify because there are too many factors involved.[320] This debate also exists in most fields of social science, not least within political science, especially security studies.[321] However, the explosion of data and technological developments both force and enable quantitative methods that go beyond the statistics of present day social network analysis that is broadly used in intelligence. If any, quantitative methods are very well suited for studying complex phenomena such as war (see section 4.3.1).

Because of the mentioned reservations and critique on intelligence as science it is also seen as an art, though the literature on this is limited.[322] Instead of proving or falsifying hypothesis, intelligence as an art is about instinct, education and experience. It is the creative and imaginative thinking that manipulates information to reveal new information and perspectives.[323] There are methods and techniques to this approach but they do not constitute a scientific process, rather, this is what is referred to as tradecraft. Describing the relation between science and art, in the context of intelligence, as a dichotomy denies the overlap. If intelligence as art takes up the space where intelligence is not science then it is more logical to regard intelligence as a combination of the two. Based on this reasoning a comparison

[318] Jeffrey R. Cooper, "Curing Analytic Pathologies," (Washington, DC: Center for the Study of Intelligence, Central Intelligence Agency, 2005), 26-27.

[319] Martin Bang, "Pitfalls in Military Quantitative Intelligence Analysis: Incident Reporting in a Low Intensity Conflict," *Intelligence & National Security* 31, no. 1 (2016): 49.

[320] Ibid., 55-57.

[321] Ibid., 56.

[322] Marrin, "Is Intelligence Analysis an Art or a Science?," 540.

[323] Ibid., 533.

between intelligence and medicine, and vice versa, is sometimes mentioned.[324] Several publications compare intelligence to a diverse set of disciplines such as behavioural and social science, history and public policy analysis.[325]

Agrell and Treverton go even further by stating that there is a convergence between intelligence and science as such. They state intelligence *'is becoming more "scientific", not necessarily in the traditional academic disciplinary sense, but resembling more the emerging complex, cross-boundary, and target-oriented research efforts.'* At the same time *'trans- and interdisciplinary research in science is becoming more like intelligence in focusing on risk assessments, probabilities, and warning, and in communicating not only results but also uncertainty'*.[326] Stated differently, increased complexity of targets and public and policy demand for better assessments of a wider range of threats, forces intelligence to transform from a proto-discipline to inter- and trans-intelligence approach.[327]

The main point of this section is that while intelligence may still be protoscience, it could also be viewed as making inter and transdisciplinary approaches to understand the increased complexity of the environment. In a true postmodern sense, instead of following a linear progress and becoming a discernible discipline first, intelligence already changes its shape. On the question if intelligence studies is a proper

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[324] Amy K. Blake, "From Intelligence Analysis to Medical Education: Using Structured Tools to Manage Bias," *Medical Education* 52, no. 3 (2018); Stephen Marrin and Jonathan D. Clemente, "Modeling an Intelligence Analysis Profession on Medicine," *International Journal of Intelligence and CounterIntelligence* 19, no. 4 (2006); Stephen Marrin and Efren Torres, "Improving How to Think in Intelligence Analysis and Medicine," *Intelligence and National Security* 32, no. 5 (2017).

[325] "A Decadal Survey of the Social and Behavioral Sciences: A Research Agenda for Advancing Intelligence Analysis."; Stephen Marrin, "Understanding and Improving Intelligence Analysis by Learning from Other Disciplines," *Intelligence and National Security* 32, no. 5 (2017). This issue of INS is dedicated to comparing intelligence to other disciplines.

[326] Agrell and Treverton, *National Intelligence and Science: Beyond the Great Divide in Analysis and Policy*, 8; See also: Agrell, "Intelligence Analysis after the Cold War," 112-13.

[327] Agrell and Treverton, *National Intelligence and Science: Beyond the Great Divide in Analysis and Policy*, 7.

discipline Gill and Phythian state that it *'is a coherent subject area, but its project is most effective when it draws on other disciplines and reaps the benefits of interdisciplinarity'*.[328] Richards also emphasises the interdisciplinarity of intelligence studies.[329] This sharply contradicts the observations from several scholars and authors in section 2.3 that portrays intelligence as a field that exists in isolation from other fields of knowledge and academic disciplines.

3.6 Institutionalisation

The last field from the framework to examine is institutionalisation. Referencing Foucault, Buzan and Hansen, notice *'that academic fields and disciplines are not objective representations of reality, but rather particular ways of looking at, and generating knowledge about, the world'.* In the same way, the particular Kentian model is the standard for generating knowledge in the intelligence habitus. Buzan and Hansen state being a field of study requires self-identification. Academic debates do not exist in a vacuum. For an academic discipline or field to exist there have to be supporting institutional structures and identities that shape it. Institutionalisation involves allocation of resources, processes of reproduction and the bureaucratic dynamics of organisations. Because of this, institutionalisation creates a type of inertia or momentum that carries the past into the future. It also creates a conservative attitude when encountering novelties such as widening/deepening approaches.[330] Buzan and Hansen are writing on international security studies but the parallels with the intelligence habitus are obvious. Supporting structures such as government bureaucracy, national and military decision-making and a closed, professional culture that permeate intelligence also make it troublesome to adapt.

To examine the Institutionalisation of international security studies, Buzan and Hansen see it as compromising four overlapping elements: organisational structures, funding, the dissemination of knowledge, and research networks. However, this is in the context of the study of an academic field while this research examines the intelligence habitus. Therefore the original subcategories of institutionalisation are

[328] P. Gill and M. Phythian, "What Is Intelligence Studies?," *The International Journal of Intelligence, Security, and Public Affairs* 18, no. 1 (2016): 7-8.

[329] Julian Richards, "Intelligence Studies, Academia and Professionalization," ibid.

[330] Buzan and Hansen, *The Evolution of International Security Studies*, 60-61.

replaced, or rather subsumed, by Landscape (what entities make up the habitus) and Adaptation (how intelligence adjusts to new phenomena).

3.6.1 Landscape

The number of actors that inhibit the modern intelligence landscape has grown since the late 19th or early 20th century when it was in essence a bureaucratic state-activity. Within governments, the consumers of intelligence have grown beyond heads of state and military commanders to a government-wide consumer base. Though intelligence has seen outsourcing to private contractors since its very beginnings, present day outsourcing dwarfs all historic examples. Another, relatively new, actor is the academic field of intelligence studies.

These three groups (government, private sector, academic intelligence studies) are the major, most interconnected, inhabitants of the intelligence landscape and as such exercise the most influence on the habitus. These three actors are examined in this section. However, there are more intelligence actors. Closely aligned with the government as an intelligence actor – at least in many democratic countries – are parliamentary oversight bodies, legal accountability bodies, and media. While these are important actors, they are peripheral in that they do not do intelligence, nor develop it actively. As such, they fall outside the scope of this research.

The proliferation of technology and knowledge of intelligence procedures and methods has given rise to a multitude of very different actors. These range from activist and research networks, the surveillance technology industry or companies that specialise in corporate, or business, intelligence.[331] Though there can be an overlap between these smaller groups and the larger contractor group, the small groups are essentially more independent from government or any traditional, national intelligence system. For their smaller influence on the intelligence habitus these 'smaller' private entities are excluded from this research.

Government is the first category to examine what entities and their activities make up the intelligence landscape. Herman offers a useful way to generalise about government intelligence. Though references to an intelligence community remain an English speaking speciality there is, at least in the West, a realisation that intelligence forms a national system to be managed as a national resource. Drawing from the US and the British intelligence structure, Herman presents a schematic applicable to other Western systems. In this schematic there is an intelligence community at the

[331] Warner, *The Rise and Fall of Intelligence: An International Security History*, 308.

national level consisting of departments and agencies. From this level there are *'downward extensions of central intelligence'*, as Herman calls them. These extensions are armed forces intelligence and security intelligence. They form vertical intelligence communities, extending from the national and strategic level of agencies down to the operational and tactical level of military units and law enforcement. Next to the dedicated intelligence organisations above, there are also temporary and part-time intelligence resources. Defence attachés and also platforms such as ships and aircraft perform intelligence collection on a temporary base or simultaneously with their normal missions. [332] These downward extensions of national level intelligence are usually not included when the intelligence community is invoked.

Contrary, in describing the organisation of national intelligence the term 'stovepiped' is commonly used. This means national intelligence is structured according to specialist intelligence collection disciplines.[333] This stovepipe structure means that SIGINT, for instance, is the domain of the National Security Agency (NSA) in America and of the Government Communications Headquarters (GCHQ) in Britain, while other agencies focus on e.g. HUMINT. Each agency is specialised in a part of the intelligence process for reasons of efficiency. The entire process therefore resembles Henry Ford's application of the conveyer belt in his car factories. The downside of this specialisation with intelligence is the compartmentalisation of gained intelligence. It is not natural to freely share intelligence scoups and risk sources and methods. Hammond takes an another, interesting, approach and states that the structure of an intelligence organisation is mainly driven by two logics: Should the organisation be centralised to optimise command and control or should it be decentralised to allow for flexibility? And, should an organisation be structured according to geographic region or by function?[334] Whatever the structure, organising intelligence, to run its daily business, results in much hierarchy and bureaucracy. Rathmell characterises this Cold War legacy of intelligence organisation as follows: *'This intelligence community shared the characteristics of other modern state and capitalist institutions. For instance, the concept of the intelligence 'factory' captured the similarity of intelligence to Fordist modes of production. The hierarchical and*

[332] Herman, *Intelligence Power in Peace and War*, 16-33.

[333] Ibid., 23; Treverton, *Reshaping National Intelligence for an Age of Information*, 7-8.

[334] Hammond, "Intelligence Organizations and the Organization of Intelligence," 696-703.

bureaucratized organisational structures of most intelligence institutions came close to the Weberian bureaucratic ideal.'[335]

The second category of actors in the intelligence landscape covers intelligence produced by private companies. Outsourcing forms a big part of intelligence. Because intelligence budget specifications are usually secret, an often invoked example is a briefing by a senior procurement executive from the US Office of the Director of National Intelligence from a 2007 conference. The briefing, titled 'Procuring the Future' revealed that 70% of the 2005 US intelligence budget of 60 billion USD was spent on outsourcing.[336] A more recent example is given by Van Puyvelde who names the US annual report on Security Clearance Determinations 2015. It shows that around 1 million intelligence contractors were provided a security clearance, making up 25% of the total of security clearances.[337] After 2015 the annual report no longer specified the personnel categories that received clearances. These two examples also show the problems of examining intelligence outsourcing: many budgets and contracts are secret and the data that is available is often of US origin due to its transparent political culture and its system of intelligence accountability. In this sense examining intelligence outsourcing suffers the same problems regarding secrecy and US prominence as intelligence studies in general.

Outsourcing can lead to new problems as well, in another example from the US, Google employees successfully protested the company's involvement in project Maven. Information on the increased use of contractors in other countries is scarcely available. The little information that exists however points towards similar developments as in the US.[338] Overall, outsourcing is a underrepresented subject in

[335] Rathmell, "Towards Postmodern Intelligence," 91.

[336] Chesterman, "'We Can't Spy... If We Can't Buy!': The Privatization of Intelligence and the Limits of Outsourcing 'Inherently Governmental Functions'," 1055-56.

[337] Damien Van Puyvelde, Outsourcing US Intelligence: Contractors and Government Accountability, (Edinburgh: Edinburgh University Press, 2019), 1.

[338] Hamilton Bean, "Privatizing Intelligence," in *Routledge Handbook of Private Security Studies* (Routledge, 2015), 86; Van Puyvelde, *Outsourcing US Intelligence: Contractors and Government Accountability*, 8.

intelligence literature.[339] *'Academic explanation and understanding of the drivers, forms, and outcomes of private intelligence is lacking'*, according to Bean.[340]

In the literature there is consensus that outsourcing has always been part of intelligence but that 9/11 is a turning point after which contractors' involvement increased strongly. From the nineties on there was a build-up of a privatisation movement, budget and personnel cuts and the IT revolution. When intelligence needed to adapt to the War on Terror outsourcing was viewed as a more quick and flexible way to surge personnel numbers and seek expertise and knowledge that was lost or simply not available in-house.[341] Not only the number of contractors grew, the relationship between intelligence and contractor also deepened and diversified.[342] Next to logistical services, technology support and administrative tasks contractors are also involved in a variety of intelligence functions regarding collection and analysis. Contractors are working in functions that are considered very sensitive and are at the very core of intelligence such as HUMINT and briefing high level officials and commanders.[343]

The US Office of the Director of National Intelligence (ODNI) distinguishes between three types of intelligence contractors. Commercial services contractors that supply straight forward demands such as catering or guard services, commodity contractors that supply intelligence specific technology regarding satellites or computers and

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[339] Morten Hansen, "Intelligence Contracting: On the Motivations, Interests, and Capabilities of Core Personnel Contractors in the US Intelligence Community," *Intelligence & National Security* 29, no. 1 (2014): 58; Van Puyvelde, *Outsourcing US Intelligence: Contractors and Government Accountability*, 2.

[340] Bean, "Privatizing Intelligence," 79.

[341] Hansen, "Intelligence Contracting: On the Motivations, Interests, and Capabilities of Core Personnel Contractors in the US Intelligence Community," 60; Patrick R. Keefe, "Privatized Spying: The Emerging Intelligence Industry," in *The Oxford Handbook of National Security Intelligence*, ed. Loch K. johnson (New York, NY: Oxford University Press, 2010), 298-300; Glenn J. Voelz, "Contractors and Intelligence: The Private Sector in the Intelligence Community," *International Journal of Intelligence and CounterIntelligence* 22, no. 4 (2009): 586.

[342] Van Puyvelde, *Outsourcing US Intelligence: Contractors and Government Accountability*, 76.

[343] Voelz, "Contractors and Intelligence: The Private Sector in the Intelligence Community."

contractors that augment intelligence staffs.[344] These contractors range from well-established defence industry giants such as Boeing, BAE Systems and Booz Allen Hamilton to smaller and more specialised corporations like Jane's, Stratfor and Control Risk to start-ups.[345] Intelligence outsourcing is situated against a background of broader security outsourcing and can be seen as part of the debatable military-industrial complex.[346] Critics of outsourcing view intelligence as an inherently government affair and raise questions about oversight, accountability, costs and a brain drain on government personnel.[347]

The third actor in the intelligence, intelligence studies, is young compared to other social sciences.[348] In the early years of the Cold War it emerged as a distinctly American phenomena. The culture of openness on the functioning of intelligence within a democracy in the United States helped gain its initial momentum. In contrast, the study of intelligence to learn lessons on its functioning in Britain in the same period was only done in government circles.[349] Another uniquely American characteristic is what Richards calls the 'CIA school'. This refers to the former practitioners-turned-academics, most known being Sherman Kent and Richards J. Heuer Jr., that laid the academic foundations of American intelligence.[350] During the 1980s intelligence became an academic subject in the US, UK and Canada. In the Netherlands the study of intelligence began in the 1990s with intelligence being taught as facultative module in university courses at Utrecht University and the

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[344] Hansen, "Intelligence Contracting: On the Motivations, Interests, and Capabilities of Core Personnel Contractors in the US Intelligence Community," 60.

[345] Bean, "Privatizing Intelligence," 80-81; Van Puyvelde, *Outsourcing US Intelligence: Contractors and Government Accountability*, 95.

[346] Bean, "Privatizing Intelligence," 80. Van Puyvelde, *Outsourcing US Intelligence: Contractors and Government Accountability*, 59.

[347] Chesterman, "'We Can't Spy... If We Can't Buy!': The Privatization of Intelligence and the Limits of Outsourcing 'Inherently Governmental Functions'," 1065-73; Hansen, "Intelligence Contracting: On the Motivations, Interests, and Capabilities of Core Personnel Contractors in the US Intelligence Community," 63.

[348] Peter Gill, "Knowing the Self, Knowing the Other," in *Handbook of Intelligence Studies*, ed. Loch K. johnson (Routledge, 2009), 82.

[349] Scott, "British Strategic Intelligence and the Cold War," 139-40; Wirtz, "The American Approach to Intelligence Studies," 29-31.

[350] Richards, "Intelligence Studies, Academia and Professionalization," 30.

University of Amsterdam, and the establishment of the Netherlands Intelligence Studies Association to promote intelligence research. In France intelligence studies also emerged in the 1990s while elsewhere on the European continent academic attention for intelligence remained low.[351] After the attacks of 9/11 interest grew resulting in literature of increased sophistication and abstraction with much emphasis on key intelligence concepts and theories.[352] Richards summarises it as follows: *'Indeed, the subject of intelligence studies itself gained significant momentum after the events of 9/11, which moved the subject beyond the simple and traditional question of how government machineries fail to spot strategic shocks before they come, and into the world of terrorism, counter-terrorism, and the changing character of conflict after the end of the Cold War. These are matters of strategy and psychology, to name but two parallel areas of study. In many ways, the postmodernity argument is as compelling for intelligence studies, as it is for any number of other disciplines.'*[353]

The number of countries outside the Anglosphere that saw intelligence studies come up in academia also increased, e.g. Romania, France, Japan, Spain, and Latin American countries.[354] Countries that already had some presence of intelligence studies prior to 9/11 matured. In the Netherlands currently both the Netherlands Defence Academy Faculty of Military Sciences and Leiden University offer a minor and master courses in intelligence.

Overall, the 'academisation of intelligence' took place during the last decades of the 20th century.[355] In this period the main journals *Intelligence and National Security* and *International Journal of Intelligence and Counter Intelligence* were founded. It also saw the establishment of organisations that promote the study in intelligence such as an Intelligence Studies Section as part of the International Studies Association. This is reflected in the growing number of articles on intelligence since 1986, as analysed in an article by Coulthart and Rorissa. They also find that the period 1950-

[351] Johnson, "The Development of Intelligence Studies," 4-7.

[352] Marrin, "Improving Intelligence Studies as an Academic Discipline," 279.

[353] Richards, "Intelligence Studies, Academia and Professionalization," 23.

[354] P. Gill and M. Phythian, "What Is Intelligence Studies?," ibid.: 13; Julian Richards, "Intelligence Studies, Academia and Professionalization," ibid.: 21.

[355] Kobi Michael and Aaron Kornbluth, "The Academization of Intelligence: A Comparative Overview of Intelligence Studies in the West," *Cyber, Intelligence, and Security* 3 (2019).

1985 only saw about a dozen articles each year, mostly from practitioner outlets such as the CIA's *Studies in Intelligence*. The period 1986-2001 saw a strong growth to a little over 100 articles in 2001. The period 2002-2020 saw an exponential growth with 4410 articles on a total of 6000 articles from 1950-2020 that the authors analysed.[356]

Intelligence studies consists of two 'dimensions' according to Gill and Phythian. At first there is the study of intelligence history, stimulated by the release of information on the role of intelligence in the Second World War and later on the Cold War. Second, the study of intelligence as a 'social science project' that draws on insights from other disciplines such as sociology, international relations and psychology *'which pose key questions about how we think about and understand intelligence—what it is, how it is conducted, by whom, with what effect, and with what degree of effective control'*.[357] This translates to four main areas of academic interest: research/historical, definitional/methodological, organisational/functional, and governance/policy.[358] The evolution of intelligence studies, its transition from the Cold War to the 21st century, is summarised by Gill and Phythian in the following table:

[356] Coulthart and Rorissa, "Growth, Diversification, and Disconnection: An Analysis of 70 Years of Intelligence Scholarship (1950-2020)."

[357] Gill and Phythian, "What Is Intelligence Studies?," 6.

[358] Ibid., 8-11.

	Early	Contemporary
Definition	Aspiring discipline.	Naturally interdisciplinary.
Focus	Narrow: strategic national intelligence.	Broad: security intelligence, including 'human'.
Conceptual concerns	How to improve analysis? The analyst-policymaker relationship. How to avoid intelligence failure?	Relationship between intelligence, state and individual. Oversight and accountability. Causes of intelligence failure.
Area focus	US/UK intelligence.	International/comparative intelligence.
Level of analysis	National.	Multi-level: organisational, national, regional, international.
Primary audience	National security practitioners, especially US.	Practitioners, policymakers, researchers, scholars, students, concerned citizens.

Table 4: The evolution of the study of intelligence.[359]

This evolution led the study of intelligence *'that now converges at a number of points with established academic disciplines'*. This convergence is seen in the former section on intelligence and science. Likewise, the growing amount of actors, and the increasing volume of articles on intelligence in the intelligence landscape is in line with the nascent widening/deepening observations from the former section.

3.6.2 Adaptation

Intelligence changes though reforms and reorganisations (see section 1.3), often following intelligence failures. As a result, there is no shortage of publications on intelligence failures since Wohlstetter's pioneering book *Pearl Harbor: Warning and Decision* (1962) on the warning failure of the Japanese attack on Pearl Harbor. Intelligence failures, and subsequent reforms of organisational structure, is the most

[359] Ibid., 15.

advanced topic within the study of intelligence.[360] However, few publications cover intelligence failures over a longer period of time with most intelligence scholars focusing on single intelligence failures and the subsequent investigations and reports.[361] The studies that do look at multiple intelligence failures usually synthesise general principles.[362] There is hardly any aggregation towards a more theorising approach on adaptation, even when article titles contain the word adaptation.[363] Compounding this is that the question how intelligence adjusts to changing circumstances is an often neglected, if not non-existent, topic within the study of public administration, political science and organisational science.[364] In its turn intelligence studies rarely draws on public administration and organisation theory scholarship.[365]

A notable exception to all this is Zegart's *Spying Blind: the CIA, the FBI, and the Origins of 9/11 (2007)*. Instead of investigating the post-mortems of 9/11, Zegart examines the 'adaptation failure' of US intelligence prior to 9/11. She regards adaptation as more than reform or change efforts. Adaptation is about change, the

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[360] Woodrow J Kuhns, "Intelligence Failures: Forecasting and the Lessons of Epistemology," in *Paradoxes of Strategic Intelligence*, ed. Richard K. Betts and Thomas Mahnken (London: Routledge, 2003), 81.

[361] Uri Bar-Joseph and Rose McDermott, *Intelligence Success and Failure: The Human Factor* (New York, NY: Oxford University Press, 2017).

[362] e.g. Copeland, "Intelligence Failure Theory."; Dahl, *Intelligence and Surprise Attack: Failure and Success from Pearl Harbor to 9/11 and Beyond*; Jervis, *Why Intelligence Fails: Lessons from the Iranian Revolution and the Iraq War*.

[363] e.g. Adam Cobb, "Intelligence Adaptation," *The RUSI Journal* 156, no. 4 (2011); John A Gentry, "Intelligence Learning and Adaptation: Lessons from Counterinsurgency Wars," *Intelligence and National Security* 25, no. 1 (2010).

[364] Lars D. Nicander, "Understanding Intelligence Community Innovation in the Post-9/11 World," *International Journal of Intelligence and Counter Intelligence* 24, no. 3 (2011): 535; Zegart, *Spying Blind: The CIA, the FBI, and the Origins of 9/11*, 43.

[365] Rick Caceres-Rodriguez and Michael Landon-Murray, "Charting a Research Agenda for Intelligence Studies Using Public Administration and Organization Theory Scholarship," in *Researching National Security Intelligence: Multidisciplinary Approaches*, ed. Stephen Coulthart, Michael Landon-Murray, and Damien Van Puyvelde (Washington, D.C.: Georgetown University Press, 2019), 143.

magnitude of that change and an improved relation between an organisation and its external environment. Mere change without context is meaningless because *'adaptation must be judged relatively to environmental demands'*.[366] For Zegart then, changes need to be major and have a positive effect on an organisations' dealing with its environment to constitute adaptation.

To investigate adaptation failure Zegart uses the data of 12 examinations of the US Intelligence Community between the fall of the Soviet Union in 1991 and the terrorist attacks of September 11, 2001. She found that, of 340 recommendations on improving intelligence in total, 268 (79%) resulted in no action at all. Those that saw implementation were partial or minor in nature, urged for more study instead of adopting a solution or were implemented to an unknown extent. While many issues were covered there was great consensus on four topics. Of all the recommendations 84% dealt with (1) the lack of coherence/coordination within and between intelligence agencies, and between intelligence and other government entities, (2) the lack of defining intelligence priority by senior intelligence officials and policymakers, (3) the need to strengthen HUMINT capabilities and sources and (4) the need to increase the sharing of personnel and information between agencies to increase knowledge.

The adaptation failure of US intelligence to shift from the Cold War to the increased threat of terrorism is apparent from the fact that both the 9/11 commission and Congressional Joint Inquiry came to the same four points as all the pre-9/11 investigations.[367] Rovner and Long also found some striking similarities between 9/11 investigations and earlier failures. They compared reports on the attack on Pearl Harbour, the Yom Kippur war, the fall of the shah of Iran, India's first nuclear test and the partial meltdown of nuclear power plant Three Mile Island. Rovner and Long concluded that: '*Almost all blame human error to a significant degree. Each commission found that a mindset of some sort was to blame for catastrophic failure. Each also recommended either increased centralization in response to a perceived lack of coordination in activity, or increased decentralization in response to the lack of alternative analysis of problems'.*[368]

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[366] Zegart, *Spying Blind: The CIA, the FBI, and the Origins of 9/11*, 16-17, 20-21.

[367] Ibid., 27-41.

[368] Joshua Rovner and Austin Long, "The Perils of Shallow Theory: Intelligence Reform and the 9/11 Commission," *International Journal of Intelligence and Counterintelligence* 18, no. 4 (2005): 626, 27.

The data clearly points towards adaptation failure being a consistent feature in multiple events over a long period. In explaining this consistency Zegart distinguishes three sources of bureaucratic reform: *'internal reforms made by the agency itself, whether in memos, speeches, revised guidelines, or sanctions of undesired behavior; executive branch action, for example, executive orders, presidential directives, or efforts by executive branch officials outside the agency in question such as the National Security Council; and statutory reforms that require the involvement of both Congress and the executive branch. These paths suggest that impediments to adaptation are likely to emerge from both inside and outside the agency'*.[369]

Building on this, Zegart explains adaptation failure is caused by 3 factors: (1) the conservative and compartmentalised nature of intelligence organisations with standardised procedures making internal reform difficult, (2) the rational self-interest of president, legislators and government bureaucrats, which works against executive reforms because change is risky and without guaranteed rewards and (3) the fragmented structures of federal government which erects high barriers to legislative reforms.[370]

Rovner and Long provide a more theoretical explanation for adaptation failure. They refer to *Normal Accidents: Living with High-Risk Technologies* (1984) by Charles Perrow. In the book Perrow explains systems can be characterised according to the level of interrelationship between its components (coupling) and the level of interaction among these components (complexity). Tightly coupled systems, as opposed to loosely coupled, are very time-sensitive and have no delay or slack in them. A high amount of interacting components, often unobservable and/or unexpected, distinguishes complex systems from linear ones. According to Perrow, tightly coupled, complex systems are most prone to (catastrophic) failure. Measures to safeguard against failure only add to the complexity. Accidents are normal in the sense that they are unavoidable in these systems.[371] Tactical warning intelligence, according to Rovner and Long, is a tightly coupled complex system. Coming back to the observation that many post-failure reforms call for centralisation and/or decentralisation, Rovner and Long state: *'The problem with complex, tightly coupled*

[369] Zegart, *Spying Blind: The CIA, the FBI, and the Origins of 9/11*, 50.

[370] Ibid., 50-59.

[371] Charles Perrow, *Normal Accidents: Living with High-Risk Technologies*, Princeton Paperbacks (Princeton, N.J.: Princeton University Press, 1999), 62-100.

systems is that they require simultaneous centralization and decentralization. In order to deal with complexity and the unforeseen, the system should be decentralized to give operators or analysts latitude in thinking and problem-solving. At the same time, the tight coupling requires centralization to ensure prompt and coordinated response. These demands are incompatible, so no optimal organizational solution exists.'[372]

However, the optimal solution is still sought, without attention for a more contextual view that draws attention to adapting to changing circumstances. Baudet et al therefore see adaptation as central to understanding intelligence: *'Throughout the 20th century the underlying issue has thus been the ability of the intelligence community to adapt to changes in the realms of technology, politics, economy, strategy, and law. This adaptation or the lack thereof impacted directly on the effectiveness and the quality of the intelligence community.'*[373]

With all reform efforts after each intelligence failure Zegart, Rovner and Long and Baudet et al offer compelling arguments, that are also mirrored in the case study of this research, as to why these never seem to lead to successful adaptation.

3.7 Conclusion: How did the intelligence habitus evolve?

This conclusion consists of an overall analysis for the drivers. Accompanying this text is table 3.3 with all driving forces along a timeline. The topics of the driving forces form the data for the figure.

After the Cold War ended the driver of great power politics shows an increase in international actors that compete and cooperate in an increasingly interconnected global network, maximising the effects of international (mis)conduct and broadening the forms of conflict with hybrid strategies. The driver of technology partly enables and forms power politics, but it also offers a way to understand and act in this environment. Technology is also used to increase the processing of information to speed up targeting and try to discern patterns in the growing data availability. The driver of events can be seen as the symptoms of the shifting power politics. The

[372] Rovner and Long, "The Perils of Shallow Theory: Intelligence Reform and the 9/11 Commission," 627.

[373] Baudet et al., "Military Intelligence: From Telling Truth to Power to Bewilderment?," 14.

events cause large effects in the international system and, in their turn, shape it. For intelligence this basically constitutes a series of intelligence failures that speak against any improvement, or speaks for the inevitability of failures, due to the complex and fundamentally uncertain nature of intelligence.

Making sense of these changes and uncertainty in the practice dimensions of intelligence falls to the more theoretical dimensions of the habitus. Here the question of method comes up. The question is how do social science and intelligence relate? However, this debate is lagging behind the changes and offers no approach to new problems. Specifically, the volume of critical, or postmodern, approaches to make sense of the changing habitus and the volume of transformational approaches to fundamentally alter and improve intelligence is growing, but still small too balance out the traditional approaches of realism, positivism and superficial reform efforts. The driver of institutionalisation, by nature, is the most resistant to change. This creates an imbalance among the drivers where a response to a changing world is small and lagging behind.

In conclusion, the intelligence habitus sees a growing interconnection between all external driving forces of the framework. This is not to say they never influenced each other before, or before the beginning of the time scope of this research. What has changed is the intensity and volume of interconnections. This growing interconnectedness is not sufficiently addressed by the internal drivers of intelligence. This does not mean there is no reaction to a changing environment, but it too dispersed and small in volume to call it an organisation, or system wide, adaptation. In other words, the habitus is crooked because the theory of practice does not fit the environment.

Decade	(Great) power politics	Technology	Events	Debate	Institutionalisation
1940-1950	Cold War US National Security Act Indication & Warning system Focus on Soviet military capabilities and political developments.	Machines Remote technical collection		Kent-Kendall Traditionalist-activist intelligence Positivist or a complex view on intelligence? Puzzles or mysteries?	Government (landscape) Study of intelligence reforms, reorganisation Introduction intelligence cycle
1950-1960	intentions x capabilities x activities Linear improvement of intelligence on Soviet Union.		Korean War Lack of coordination, cooperation. Much single source intelligence.		
1960-1970		Computers	Vietnam War Hamlet Evaluation System Cuban Missile Crisis Importance of all-source intelligence.		Dawn of intelligence studies
1970-1980				Intelligence as art or science?	
1980-1990			End of Cold War		
1990-2000	Peace dividend Loss of focus. Budget cuts Snakes instead of a dragon.	Revolution in Military Affairs Network Centric Warfare From C2 to C4(ISR) Less seperation between intelligence and target aquisition.			Increase in governmental intelligence customers and users.
2000-2010	War on Terror Rise of non-state actors. Interdependence of threats (failed states, terrorism, international organised crime). Less seperation between foreign and domestic intelligence. Population-centric intelligence, Human Terrain System.	Information revolution Information overload Growth of open source information environment/OSINT. Cyberspace Total Information Awareness	9/11 Still lack of coordination, cooperation. Centralisation reforms Iraq WMDs Focus on capabilities. Neglected social science intelligence.	Structured Analytic Techniques, accusations of 'scientism'. Critique on the intelligence cycle. Widening and deepening of intelligence, emergence of postmodern and critical intelligence studies. Paradigm debate	Private contractors (landscape) Growth of intelligence studies Intelligence adaptation
2010-2020	Return to great power politics Re-emergence of Russia, rise of China.	Algorithms, Project Maven Big data	Russian intervention in Ukraine Focus on hybrid warfare.	Convergence intelligence and science, proto-science with multi- and interdisciplinary approaches.	

Table 5: Overview of driving forces of the intelligence habitus.[374]

[374] Compiled by author.