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*Bias and Intelligence - An Examination of the Intelligence
Cycle with a Case Study of the Iraq War*

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Contents

Introduction.....	3
The Intelligence Cycle.....	7
Cognition, Beliefs and Biases.....	12
The Missing Dimension: Biases and Beliefs in the Intelligence Cycle	19
Inside: Collection and Analysis.....	21
Outside: Dissemination and Feedback	32
Case Study: Pre-War Intelligence Assessments of Iraqi WMDs	36
U.S. Intelligence	37
The UK Case.....	45
A Bias Cycle of Intelligence	48
Conclusion	53
Bibliography	54

Introduction

The end of the Cold War marked the wind down of one of the most extensive intelligence campaigns in peace-time history while only a decade later the events of 9/11 lead to a resurgence in the importance and subsequently interest in intelligence. The academic study of intelligence has arguably intensified with regards to the underlying mechanism in the production of intelligence, especially since the inception of the war on terror and the two concomitant campaigns in Afghanistan and Iraq. Because of these events “[i]ntelligence and security issues [were] more prominent than ever in Western political discourse as well as the wider public consciousness” (Scott and Jackson, 2004:139). The study of intelligence has transformed from historic case studies to the attempt to build more complex theories given that there was an apparent "under-theorisation" (Andrew, 2004:176).

Underlying most formal theories in intelligence studies is the concept of the intelligence cycle, a simplified template that outlines steps in the intelligence production process. The intelligence cycle was initially conceived as a teaching tool to provide recruits with an idea of the wider intelligence process beyond their respective specialised field they would be working in. The intelligence cycle has been used in this context at least since the Second World War and as such is now deeply enshrined in any study of intelligence (Hulnick, 2011). Johnson (2003a: 2) goes so far as to say that “any theory of strategic intelligence must be built around the [...] intelligence cycle”. The centrality of this concept is also owed to the fact that since its inception it was based on the notion that intelligence is predicated on the production of objective knowledge and hence of intelligence speaking truth to

power (Kent, 1966). This underlying notion of knowledge and speaking "truth to power" has, according to Marrin (2009: 134, 133), become the "standard model" in intelligence studies.

Intelligence is often studied from a perspective when the 'standard model' fails and flawed knowledge is produced. Intelligence failures of this kind seriously question whether the notion of intelligence amounting to a truth can be the basic premise of a theoretical framework. Other scholars have criticized the standard model and the intelligence cycle for focusing too narrowly on aspects of knowledge and in doing so omitting other important elements in the production and usage of intelligence (e.g. Scott, 2004; Rathmell, 2002). Nevertheless the concept of knowledge production as embodied by the intelligence cycle remains the prevalent theoretical framework to theorise intelligence. This dissertation will build on the premise that intelligence seeks to produce knowledge as described by the intelligence cycle and will investigate how biases influence the individual production steps of the cycle and the knowledge end-product.

In order to do so, this dissertation will firstly outline the respective theoretical foundations and subsequently integrate them towards an improved cycle theory. Thus this paper will build towards a theory of a bias cycle of intelligence in combining elements of the intelligence cycle theory with findings from (political) psychology related to biases affecting judgement and perception. The concept of the intelligence cycle and its individual steps will be outlined. Emphasis will be put on the relevance of judgement and perception to the individual steps of gathering, analysis and intelligence usage. The second section of this paper will contain an

outline of psychology literature that presents biases that are relevant to judgement and perception. Herein this paper will distinguish between ‘cold’ cognitive biases and ‘hot’ motivated biases and will additionally delineate the respective effects of these biases and how they interact.

Subsequently this paper will integrate both sections and demonstrate the relevance biases have in relation to intelligence production in dismissing the notion of objective truths. On the contrary, it will be shown that intelligence does not create objective truths to inform policies, but rather that the truths created are subjective to the context they were created in. This notion is supported by a case study of pre-war intelligence assessments of Iraqi WMDs that shows how biases work in the cycle model and how they ultimately inform policies. In this section this dissertation will mainly draw on official parliamentary investigations as well as academic literature. In terms of inquiries specifically the "Review of Intelligence on Weapons of Mass Destruction" for the House of Commons (hereafter Butler report), the "Report on the U.S. Intelligence Community's Pre-war Intelligence Assessment on Iraq" by the United States Senate Select Committee on Intelligence (hereafter SSCI) and the Report by the Commission on the Intelligence Capabilities of the United States regarding Weapons of Mass Destruction (hereafter WMD commission) will be used

The case of intelligence assessments previous to the war in Iraq will demonstrate that it is important that the concept of the intelligence cycle is improved by accounting for sources of bias and through this refining its efficacy. By incorporating the role of bias at each stage of intelligence production this simplified concept will account for more context of the intelligence process, which allows to

trace how biases affect individual steps and subsequently are carried forward in the cycle. Through accounting for biases and transforming the model into a bias cycle of intelligence it justifies its continuing central position in the study of intelligence in highlighting the process of its production.

The Intelligence Cycle

Most theories of the intelligence literature is build on the premise, that intelligence is organised around the production of knowledge through gathering and analysing raw information and thereby provide intelligence for policy purposes (Scott, 2004). The concept of the intelligence cycle is based on this notion and outlines the individual steps in this process.

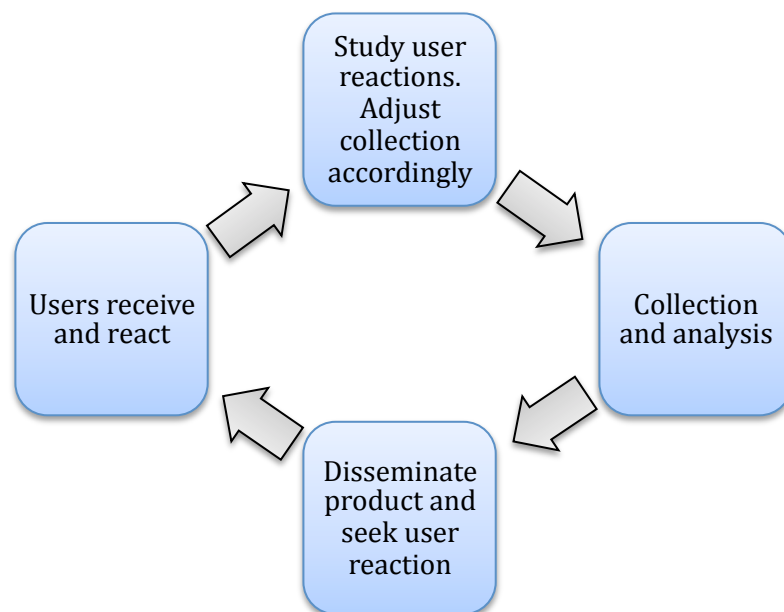


Figure 1: Intelligence Cycle (Herman, 1996: 295)

The cycle is designed with the usage of intelligence for policy purposes in mind, given that 'user reaction' is a vital component of this cycle. An intelligence agency is free to conduct their collection efforts in fields they deem important for security or other reasons, however they have to adjust their resources at the end of the cycle when policy-makers have received the finished product and given their opinion on it. The underlying idea of the intelligence agency 'selling' their product to policymakers is best represented by a remark attributed to former secretary of state

Henry Kissinger, “that he did not know what intelligence he needed but recognised it when he saw it” (Herman, 1996: 293).¹

Collection efforts follow the lines of the traditional human intelligence (HUMINT) source, signals intelligence (SIGINT), which includes radio intercepts and other forms of telecommunications, imagery intelligence (IMINT), which is mostly based on satellite images but also imagery from planes and drones and lastly open source intelligence (OSINT), which mostly makes for background material (Herman, 1996: 61f.). Gathered material is subsequently analysed, which involves checking the reliability of the source, identification of significant facts and drawing conclusions which are integrated with other information to allow to interpret and ideally predict on this basis (Herman, 1996: 100f.). The aim is to provide as accurate a picture as possible for policy- and decision-makers to select appropriate actions and policy responses, however the level of analysis has its limits. Odom (2008) remarks that while the aim is to provide accurate information that ideally allows to make certain predictions, intelligence analysis does not provide certainty on a level that would constrain policy choices.

This in turn leads to the next stage of the cycle, disseminating the finished intelligence product to policy-makers. The step from the collection and analysis stage to the dissemination stage implies that the finished analysis is converted into a finished intelligence product, i.e. a report that can be distributed to the appropriate decision-makers. User reactions and the relationship between intelligence community (IC) and the policy-makers is of crucial importance – for the formal model as well as for actual outcomes resulting from the process. Hulnick (1986)

¹ Herman (1996: 294) remarks that the notion of ‘selling’ knowledge applies predominantly to foreign intelligence, as domestic or security intelligence preoccupied with detecting security or espionage threats is subject to different dynamics.

concludes that an exchange between the IC and policy-makers – a linkage that has received more attention in recent years also given the case of the second Iraq war – is a prerequisite for intelligence to work as input to policy-making. Nevertheless in the traditional view there should always remain a ‘red line’ between the IC and policy-makers to prevent them from becoming too close (Steiner, 2004).

The idea of a ‘red line’ was owed to the notion that intelligence is providing objective facts and thus speaking truth to power and that transferring these facts into policy proposals is best left to the policy-makers (Steiner, 2004). Nonetheless with the end of the Cold War and intensified intelligence efforts in the aftermath of 9/11 the red line started to blur if not dissolve entirely. Steiner (2004: 4f.) asserts that one reason for this trend is that IC analysts are trying to stay “relevant” in a fast moving policy environment and that in order to do so they have become more “responsive” to policy-makers and their staff were given almost unrestricted access to intelligence even in raw form.

From feedback of intelligence users and policy-makers the IC can subsequently adjust their priorities while still being able to present additionally new intelligence in the next cycle. This concludes the cycle which starts from its beginning into a new cycle to guide policy through the presentation of analysis and estimates. The concept of the cycle is “deeply enshrined” in the intelligence literature and has led to the idea of intelligence “speaking truth to power” to become somewhat a “standard model” in intelligence studies (Hulnick, 2006: 959; Marrin, 2009: 134, 133). This standard model has however not remained without criticism, which ranges from intelligence process questions to more fundamental critiques of the predication that intelligence is defined as the production of knowledge.

Hulnick (2006) for example criticises the sequence of actions as presented in the cycle as inappropriate given that actual intelligence production rarely follows a cyclical pattern and often occurs in parallel.² Moreover he asserts that policy-makers seldom give feedback or guidance to the IC with respect to their collection and analysis priorities as the cycle maintains. While sometimes policy-makers inform the IC of their main concerns they mostly assume that the IC will provide adequate warning about future developments that are of concern (Hulnick 2006). In his opinion the IC is the “real driver” in intelligence production and that most steps of the cycle are actually happening in parallel rather than sequence (Hulnick, 2006: 961).

In addition to these ‘operative’ inaccuracies there are more fundamental critiques of the concept of the intelligence cycle. Scott (2004) states that the understanding that intelligence equals knowledge production requires revision to account for aspects of secrecy and clandestine action. Marrin (2009) finds that the ‘standard model’ of the intelligence cycle similarly flawed. To him the underlying notion of providing objective facts and speaking truth to power do not stand the test against actual events. He thereby raises an epistemological question as to what really constitutes intelligence and whether it can only consist of value-free facts. Ben-Isreal (1989: 660) similarly wonders whether an intelligence analyst has to rid him or herself of all personal conceptual frameworks in order to be a good analyst or if indeed a personal framework is what makes a good analyst.

Marrin (2009: 141) prescribes instead a theory that takes into account that “decision-makers will be faced with multiple possible versions of the ‘truth’”, and

² It has to be noted that the intelligence cycle in figure 1 puts collection and analysis in one step while other graphic illustrations of the cycle contain two distinct steps for both actions. As described above however, the cycle means to read that collection precedes analysis.

opts for a model of multiple advocacy in which varying positions are weight against each other. It is especially the last stages of the intelligence cycle that are of importance in this context. Even when assuming that the finished intelligence product is objective, the way it is interpreted and used for policy purposes by decision-makers may not do it justice in this way. Therefore “in many cases there is a conflict between what intelligence at its best can produce and what decision makers seek and need” (Jervis, 2010a: 187).

This criticism hints at the unreflective nature of the intelligence cycle, which assumes that objective facts are gathered, objectively analysed and disseminated as objective truths that inform policies. Beyond intelligence studies findings in (political) psychology are especially relevant to the concept of truth as outlined above. Each step of the intelligence cycle – gathering, analysing and using intelligence – are subject to perceptions and judgements of the individuals within the IC involved. The literature presented below however points out that perceptions and judgements can be subject to biases and affected by them.

Cognition, Beliefs and Biases

Biases – an “inclination or prejudice [...]” – affecting judgements and perception are integral part of the political psychology literature, however often overlooked in the study of intelligence (Oxford, 2012). They are often distinguished as ‘cold’ and ‘hot’ cognition with many scholars disputing what aspects to attribute to which phenomenon (See for example: Miller and Ross, 1975; Nickerson, 1998; Kunda, 1990). This section will examine aspects of ‘cold cognition’, i.e. “information-processing limitation” as explanation for biased perceptions when confronted with new information (Jost et al., 2003: 341). The second part of this section will deal with ‘hot cognition’, that is motivational biases that are rooted in emotions and beliefs (Jost et al., 2003). In this context the theory of lay epistemics, which deals with the need to arrive at a firm belief as part of cognitive closure is also a relevant factor.

Psychological experiments in the last couple of decades have demonstrated that human perception as well as cognition is often prone to inherent biases, which in turn lead to flawed judgement in particular in social contexts (see for example Ch. 12 Gleitman et al., 2007). These findings give an account of how cognitive processes – and following from that – perceptions and beliefs can influence the judgement humans make with respect to new information or indeed intelligence. More importantly the literature highlights that in order to understand what and how people perceive and how perceived information is processed depends on past experiences and socialisation (Heuer jr., 1999). Therefore cognition, beliefs and biases resulting from them, are also a vital component of intelligence collection and analysis given that perceiving and processing new information is central to these

steps in the intelligence production process. Moreover the selection and usage of finished intelligence products for policy purposes is similarly based on the same processes and thus potentially subject to the same source of biases.

An important element in dealing with new information is that cognitive limitations cause people to “employ various simplifying strategies and rules of thumb to ease the burden of mentally processing information to make judgments and decisions” (Heuer Jr., 1999: 111). Tversky and Kahneman (1974) for example examined how uncertainty and ambiguity lead to the employment of heuristics as rules of thumb for judgements and decision-making. Their research concluded that even experts in their respective fields are not exempt from faulty judgements of this kind resulting from cognitive bias (Tversky and Kahneman, 1974). While these experimental findings do not imply that every person is at every given time subject to such subconscious flaws in judgements, it can relate to intelligence professionals – be they on the collection or analysis side – in so far as they are also not immune to making wrong judgements and misattributions even with years of experience.

One of the main issues in intelligence production is the absence of sufficient evidence that would facilitate the establishment of causal changes and predictions. In reality intelligence officials build theories to fill the gaps in scattered evidence and in order to enable predictions and estimates for policy planning. In the absence of clear evidence these theories are usually judged by their internal consistency with the rest of the evidence. However, as Tversky and Kahneman (1974) point out that internal consistency can be deceptive and does not necessarily imply that one faces an accurate picture of events just because it presents itself as internally coherent. This can become especially problematic when the sample of available information from which to draw conclusions is very small. Tversky and Kahneman (1974:

1125) dubbed the tendency to place high confidence in internally consistent conclusions without regard for the size of the available information sample as “the law of small numbers”.

Judgements and conclusions reached by a person nonetheless have a tendency of consistency in their individual beliefs (Jervis, 1976: 117ff.). Such a consistency can be described as rational and balanced if the “actor’s well-grounded beliefs about the consistency existing in the environment he is perceiving” do not reveal irrationality (Jervis, 1976: 119). This implies that a person’s judgements are consistent with each other in so far that, for example, if people are assuming that their enemies are trying to work against them they will also do so against their friends. The idea that our enemies are our enemies because they may not like what we stand for and that our friends are our friends because they stand for the same things implies that our enemies do not like our friends is a rationally coherent train of thought. According to Jervis (1976: 118) people feel “more comfortable when configurations are balanced” in this way.

This in turn leads to a cognitive tendency to maintain or increase this balance when assimilating more information to an existing set (Jervis, 1976: 143ff.). New information – or intelligence for that matter – will thus be arranged to fit with the previously established rational cognitive consistency to perceive what one expects to find. Following from this, even contradicting information is arranged to fit an image a person has previously formed (Jervis, 1976). The implication of this tendency is that contradicting evidence is only reluctantly believed, while confirming evidence is taken in immediately. Moreover, contradictory positions are often not recognised as such unless the discrepant nature is too obvious, or such positions are simply overlooked and go by unnoticed. The predisposition of the

human cognitive apparatus to revert to “prior knowledge” can thereby cause “stasis” and a negative inclination towards new information, intelligence and knowledge and their respective validity, especially when contradicting established beliefs (Blaug, 2010: 67f.).

In addition to affecting the evaluation of evidence as described above, cognitive biases can also affect how people perceive the world and in particular causal chains in their reasoning, e.g. in intelligence. This in turn can have various effects in itself that can have implications in an intelligence context. Firstly there is a tendency to overlook external factors when perceiving an issue and to focus on internal factors. Subsequently causes are attributed to personal characteristics (internal) rather than to situational and environmental factors (external) when judging others, while vice versa when assessing one’s own judgement (Heuer Jr., 1999: 134ff.; Jervis, 1976: 319ff.). Furthermore, there can be a tendency to perceive issues to have centrally rooted causes rather than multiple diverse causal chains. Similarly to the overemphasis on internal factors, the perception of central causes has an inclination to see deliberate strategies rather than for example chains of accidents and situational causes that lead to a certain outcome (Heuer Jr., 1999; Jervis, 1976).

The above-mentioned possible cognitive biases can all be relevant to the production of intelligence, however as pointed out do not necessarily apply in every single situation. Moreover if a cognitive bias is influencing the judgement of evidence or the perception of an issue, then it is an inherent process to which the human brain reverts in an attempt to cope with processing new information (Blaug, 2010: 67ff.). This stands in contrast to effects that are induced through the motivation, emotions and beliefs of a person to reach a certain conclusion or judgement. This hints at the notion of ‘hot cognition’ in which affect, emotion and motivation play a crucial role

for perception and judgement. Ideology, for example, is “perhaps the quintessential example of hot cognition, in that people are highly motivated to perceive the world in ways that satisfy their needs, values, and prior epistemic commitments” (Jost et al., 2003: 341).

“Directional motives,” which aim to “reach specific conclusions”, are ‘servicing’ underlying beliefs that people hold, which in turn can cause selective perception and judgement when confronted with a situation or issue that challenges said beliefs and underlying motives (Jost et al., 2003:340). In other words “Beliefs may be rationalizations for policies as well as rationales for them” (Jervis, 2006: 652). Nevertheless these motives and beliefs have to be at the very least partly responsive to the constraints of reality, i.e. the situation or issue faced with (Kunda, 1990). A motivated bias of this kind can therefore be understood as a type of coping mechanism to satisfy psychological or emotional needs (Jervis, 2006, Jost et al., 2003). Such ‘hot’ cognitive biases centred around motives and belief systems could equally affect judgement and perception during the process of intelligence production.

‘Hot’ cognition similarly to ‘cold’ cognition manifests itself in many variations of biases. Corresponding to issues of consistency and balance in the previous section, confirmation bias is “the seeking or interpreting of evidence in ways that are partial to existing beliefs, expectations, or a hypothesis in hand” and as such is a motivated bias that is not caused by mere information-processing problems (Nickerson, 1998: 175). Furthermore motivated judgements can become self-reinforcing, so that evidence is perceived “not only to be consistent with pre-existing beliefs, but to confirm [it]” (Jervis, 2006: 651). This reaffirmation of one’s own beliefs also

stems from the avoidance of “value trade-offs” and subsequently self-deception works to bolster these beliefs (Jervis, 2006: 652f.).

In addition to the reinforcement of beliefs, the theory of lay epistemics combines aspects of ‘cold’ and ‘hot’ cognition in which a “motivated informational search” is the route to knowledge and beliefs (Jost et al., 2003: 347). Central to this theory is the need for cognitive closure, that is to arrive at a firm belief about a given issue or topic in order to avoid uncertainty and confusion (Jost et al., 2003; Bar-Joseph and Kruglanski, 2003: 80ff.). The desirability of closure in turn is dependent on the perceived benefits and costs of closure or lack thereof. If the need for action or a prediction is high, the need for closure, i.e. to arrive at a firm belief in face of the evidence becomes more desirable (Bar-Joseph and Kruglanski, 2003).

Traditionally these examples of motivational biases or ‘hot’ cognition were associated with emotionally charged beliefs that stand in contrast of rational reasoning. More recent related findings to emotional beliefs however suggests that emotions not only do not stand in contrast to rationality, but are a precursor for rationality (Mercer, 2010). According to Mercer (2010: 2) beliefs are not emotionally charged in the sense that it displaces cognition, but “beliefs are where emotion and cognition meet”. The fact that emotions are a condition for rational beliefs however does not imply that emotions are unreservedly a source for good decision or that cognition is in fact negligible in decision-making (Mercer, 2010). Thus one is better off with emotion as one of the fundamentals to ground one’s decisions in, yet “relying only on emotion implies one is unhinged from evidentiary constraints” (Mercer, 2010: 15). Hence the idea of emotional beliefs rejects a trade-off on emotion and highlights the notion that it is where cognition and emotion converge. Subsequently emotional beliefs such as credibility can be better

understood through emotion and the influence it yields on such a concept (Mercer, 2010).

The academic literature of psychology – and in particular of political psychology – thus provides interesting insights into aspects of perception and judgement related to intelligence. The theories of cold as well as hot cognitive biases can be considered to be vital parts not only in determining the reasons for intelligence failure ex-post, but when integrated with models of intelligence production also give an account of where potential sources for errors can be located in the process.

The Missing Dimension: Biases and Beliefs in the Intelligence Cycle

The existing dimension of the outlined problem are the existing theories of the intelligence cycle, which outlines the steps of intelligence, i.e. knowledge production and political psychology literature that highlights sources of ‘hot’ and ‘cold’ cognitive biases that can influence the judgement and perception of an actor with respect to new information. The missing dimension, which this dissertation seeks to illuminate, is the integration of both existing dimensions. The intelligence cycle accounts for how knowledge is (supposedly) produced, however does not give any indication of the context in which it is produced, which in turn can determine what kind of knowledge is informing policy. In combining the individual steps of intelligence production as outlined in the intelligence cycle (see figure 1) with potential sources of bias an improved cycle accounts for the production of the finished product irrespective of its quality.

The analysis intelligence failure has been an integral part of the study of intelligence since the subject has been studied and has subsequently been described as an “inevitable” part of intelligence (Betts, 1978: 61). Beyond the ‘post mortem’ analysis of intelligence failure however, an integration of potential sources of bias into the models of intelligence production would allow to account for the context of what may later be judged to have been a flawed process. The missing dimension in the literature is thus a theoretical model that does not make absolute judgements – in the sense of intelligence failure – but outlines the production of intelligence and its context. Such a model would have the advantage that it would allow to trace the process and context in which knowledge is created and reveal sources for errors and flaws without employing the stigma of failure.

This has the additional benefit that it permits the examination, for example, of an initial ‘error’ in collection and analysis that may later turn out to be a useful by-product without it being labelled an intelligence failure. Similarly, as Jervis remarks, a flawed conclusion, judgement or reasoning process does not necessarily imply faulty assumptions and beliefs on behalf of the intelligence agencies (Jervis, 2006). The literature analysing intelligence failures, however abets this reasoning by labelling the complete process a failure, rather than examining individual steps of the process that went wrong. Moreover integrating bias with the intelligence cycle as proposed above (and outlined below) allows not just to identify the possible sources of error, but in any given case can also reveal why errors were not rectified at a later stage in the knowledge production process.

In order to establish such a theoretical framework the following subsections will link the relevant biases outlined in the previous section with the individual steps of the knowledge production process as outlined in the intelligence cycle. It will be demonstrated that given that the intelligence process is reliant on judgements, biases can be linked to all steps of the cycle. For simplification reasons the production process will be split into two – the collection and analysis stages that usually happen ‘inside’ a national intelligence agency and the dissemination and reaction stage that happens ‘outside’ an intelligence agency usually at government agencies and ministries or the centre of government as for example the White House or Number 10 Downing Street.

Inside: Collection and Analysis

The first step of the intelligence cycle – collection and analysis – are usually conducted within the intelligence agency and thus operationally without major outside influence. As outlined in the section on the intelligence cycle, intelligence agencies use various means of collecting information that is later transformed into a finished intelligence product. Although the collection stage seemingly suggests a ‘simple’ task of picking up what is ‘out there’ that leaves few opportunities for cognitive bias to influence the end result, there is nonetheless scope for such errors. Biases can be related to the sources of information, as well as to the selection of gathering techniques that are employed for collecting intelligence.

The intelligence collector and the intelligence agency itself are free to explore sources of information they deem necessary and appropriate to their mission as long as they do not go beyond mission parameters and are within the law. This freedom however implies that the selection of collection targets falls within the discretion and judgement of the respective intelligence agents. The collection process itself can thus be subject to cognitive biases that are related to and can affect the judgement in the selection of targets. It subsequently follows, that intelligence officers may for example be subject to cold cognition in the selection of gathering techniques for a given intelligence requirement. Officers may resort to gathering techniques they are familiar with or that have been established in similar cases and may not question if different techniques would be more appropriate in this case.

In addition to this, intelligence production is self-evidently subject to a limited resource constraint that makes efficient employment of these imperative. Faced with pressures of limited resources and eventually with feedback and requirements

from within the IC and policymakers, intelligence officers may for example be subject to cold cognition in their perception of how and where to gather information. This basic trait plays out among two lines; firstly when it comes to strategic considerations as to where to gather intelligence, i.e. what countries and regions do constitute a priority and secondly as to what and how methods and techniques of intelligence gathering are employed. Decisions made along both lines are open to biases in the form of ‘hot’ and ‘cold’ cognition and can be affected by those. In this sense the first stage of the intelligence cycle – gathering of information – is not necessarily a simple task of providing a picture of the outside world, but a selection task in itself that affects the supposed production of knowledge and truths.

As outlined above, the intelligence cycle indicates that the selection of gathering ‘targets’ is amongst other aspects guided through the feedback of politicians who usually provide a certain “*Weltanschauung*” which guides overarching goals in foreign policy and thus also in intelligence (Johnson, 2003b: 640).³ The guidance by politicians aside this still leaves discretionary room for intelligence agencies to make a decision as to what regions and issues have to be given strategic priority. These decisions in turn are based on the perceptions and beliefs of the decision-makers within the intelligence agency and as such are open to biases.

Steve Coll captured an instance where intelligence gathering was stuck in established thinking patterns in his account of the aftermath of the Soviet withdrawal from Afghanistan and the demise of the Soviet Union. Afghanistan and the mujahidin dropped of the ‘radar screens’ of the IC as well as policymakers and only reappeared when some of these mujahidin became an imminent threat to the

³ Emphasis quoted from original.

US (see Coll, 2005).⁴ One could argue that ceding collection efforts from Afghanistan with the withdrawal of Soviet troops is indicative of the reversal to established patterns as outlined in the previous section on cold cognition. The possibility for bias to affect considerations in intelligence gathering is nevertheless not just restricted to strategic targeting considerations. The selection of gathering techniques is subject to similar possibilities for biases.

Like strategic considerations as to determine where and what to gather in terms of information for intelligence production, the employment of gathering techniques could be similarly affected by biases. Each respective gathering method, HUMINT, SIGINT and IMINT have their own advantages in certain areas and disadvantages in others. Herman (1996: 82) notes that SIGINT and IMINT contribute to intelligence production through “observations and measurements of *things*”, while HUMINT “produces access to human thought-processes or *meaning*”.⁵ Usually a mixture of methods is used in the production of intelligence especially to control the credibility of gained material across sources. Naturally however IMINT is predisposed to provide especially military information of for example troop movements, while HUMINT is better suited to provide political insights (Herman, 1996: 82ff.).

This ‘division of labour’ that is commonly applied can lead to the influence of cold cognitive biases in the same way as in the strategic gathering decision, given that intelligence agencies may resort to established patterns in the employment of gathering techniques. There is a danger that these gathering techniques may be

⁴ It has to be noted however that of course some individuals within the IC as well as in politics were aware of potential security developments arising from the mujahidin. Nonetheless these aspects went largely unnoticed.

⁵ Emphases quoted from original.

employed according to a framework that is too rigidly based on established practices and may inhibit successful gathering operations under different circumstances. During the Cold War SIGINT was mostly targeted to intercept military communications and provide information of troop movements etc., although it was also used to provide additional information in other fields where possible (Herman, 1996). This is in stark contrast to signals and communications intelligence in the age of the war on terror where mobile phones and computers of individuals half way around the globe are being targeted.

Similarly the employment of HUMINT and IMINT can be subject to cognitive biases. Despite some guidance from policymakers it is a core requirement of intelligence agencies to provide strategic warning of emerging security concerns. Since these can change quite dramatically (in particular concomitant greater international political shifts), the employment of information gathering techniques should not be too rigid. Scenarios in which satellites are only utilised for the purposes of monitoring troop movements and the building of suspicious facilities and installations and thus miss other vital information are easily conceivable. Correspondingly, the use of human sources could also be affected by established thinking. Confronted with new (security) challenges agencies may overly rely on their accustomed estimates where best to acquire assets for information. This is not far from a more obvious case of cold cognition such as employing a rule of thumb in perceiving a situation (see for example Tversky and Kahneman, 1974).

Moreover, methods of intelligence could also be subject to motivated biases, since the gathering process is at the discretion of intelligence agencies and their respective departments and branches. Motivated biases in relation to intelligence gathering are probably only conceivable in the context of intra-agency 'turf wars',

in which collector have a interest to confirm their status. More important are motivated biases in relation to the strategic target selection where emotions, beliefs and other motivations can play a far bigger role. The selection of human sources for example may be arranged to support and reinforce a certain perception in such a situation.

On the management level of an intelligence agency that may even be partly filled with political appointees, motivated biases predicated on existing beliefs are certainly a possibility. If preconceived beliefs do affect perceptions and judgements this could affect the gathering part of the first step of the intelligence cycle in so far as it can influence the strategic decision where and how to gather intelligence as. According to Coll (2005: 89ff.) the former director of central intelligence William Casey expanded intelligence efforts against the Soviet Union out of his personal belief that the Soviet Union had to be defeated. While the Soviet Union was certainly an intelligence target before his time as director, he expanded these efforts “to challenge Soviet power worldwide” (Coll, 2005: 90). Moreover he decided to alter the gathering efforts of the CIA in highlighting the importance of HUMINT, which constituted a stark contrast to his successor John Deutch who favoured electronic gathering techniques to gain SIGINT and IMINT (Coll, 2005: 96, 316).

The collection of intelligence is therefore not a straightforward process of gathering information that will help to create knowledge and ultimately truths. On the contrary this supposedly linear process of collecting what is ‘out there’ allows in many ways to be influenced by possible idiosyncratic biases of the individuals involved or biases that may be prevalent in an intelligence agency as an organisation. Thus the first step in the production of knowledge is already subject to possible effects stemming from biases, which calls into question the quality of the

knowledge product that seeks to provide ‘truths’ to policymakers. This point becomes even more evident when considering the analysis of gathered information that leads to the production of the finished intelligence product that will ultimately disseminated to decision-makers.

The analysis and interpretation stage in the intelligence cycle certainly gives even more scope for cognitive biases to affect the production of intelligence. In order to produce an intelligence report on a certain issue, analysts draw on types of sources (i.e. HUMINT, SIGINT etc.) as well as a variety of different sources within each type. The sources will be evaluated with respect to their reliability and subsequently analysed and the findings integrated with existing with previous findings into a “pattern or picture” (Herman, 1996: 100). After findings have been integrated in this manner analysts try to derive policy relevant meaning and if possible to predict future developments.

Each respective step in the process of analysing raw information to convert it into a finished intelligence product can be affected by cognitive as well as motivated biases that would question the truth content of the finished product. The possibility of biased analysis is taken seriously by intelligence agencies and is thus part of the training process of analysts. ‘Psychology of Intelligence’ by Heuer jr. (1999) for example is a now openly available ‘manual’ that was used for instruction and training of CIA analysts that solely occupies itself with the effect cognitive biases can have in the production of intelligence. This highlights the magnitude of impact biases can have in the production of knowledge and informing policies by speaking truths to power.

The first instance where biases may influence what knowledge and ‘truths’ are being produced is when analysts decide what raw information that has been gathered by different techniques from various source is being picked up and which is negligible or only needed at a later stage as a “potential modifier[s]” (Marrin, 2003: 623).⁶ The selection of raw information inherently allows for biases related to consistency as mentioned in the previous section. The cognitive tendency to arrive at an internally consistent picture can be deceptive and affect the perception as Tversky and Kahneman (1974) point out. This can not only affect the analysis of the chosen raw information, but also the selection of raw information itself. The selection of information for analysis can thus be affected by internal consistency but also by the tendency to pick raw information that reinforces pre-formed beliefs or analysis derived from other information. Hence raw information may not only be picked in accordance with beliefs of analysts, but also so as to reinforce their beliefs (Jervis, 2006).

Both tendencies have different effects and can therefore lead to different outcomes. The tendency towards consistency may lead to analysts overlooking information that is vital to the intelligence product, however that does not fit previous patterns. Vice versa, analysts may see patterns where they are actually just observing random events that appear to follow some kind of structure and thus pick up on information that warrants no further analysis (Heuer Jr., 1999: 129ff.). While these effects influence what information is being included in the production of intelligence they may not actually have an influence on the quality of the end product. If the selection is guided by the reinforcement of existing beliefs (and not just consistency)

⁶ The decision what information reaches the analysis stage may lie with information gatherers who decide what to forward for analysis (See for example Jervis 2010b: p.141). In such a case the potential for bias would obviously lie at the gathering stage.

however then the end product will almost certainly be affected, given that contradicting information will be deliberately omitted.

Following from the selection of raw information that is to be examined, analysts continue to interpret, integrate and provide context to the information in order to produce a finished intelligence report (Marrin, 2003: 623ff.). The work of analysts is often analogous to scientific scholarship – formation of hypotheses from gathered information and their testing against evidence – which is also why Kent (1966) and others understand intelligence to be the production of knowledge and as an extension of this truths (Ben-Israel, 1989; Marrin, 2003). There are however several caveats in this depiction, which is why although there are similarities in the analysis process, intelligence production is more often compared to the working of a historian that tries to derive meaning out of sources (Heuer Jr., 1999: 125ff.).

Intelligence analysts therefore try, like historians, to “make a coherent whole out of the events” studied in trying to derive a “coherent story out of fragments of data” and is as such “essentially a storyteller” (Heuer Jr., 1999: 128). The aspect of coherence that is central to the work of analysts in turn can be subject to biases that influence the perception of coherence or what is being defined as the basis of coherence itself. Above all this relates, again, to the concept of consistency and the assimilation of new information to pre-existing patterns of thought and beliefs. The problematic of the tendency of attempting to integrate new information in a way that it is consistent with previously gained information has already been outlined in the context of information selection above, however the underlying *modus operandi* of the intelligence analyst potentially assigns even more scope to this bias in the production of knowledge.

Beyond the issue of consistency, the tendency to achieve balance through consistency stems from the search for order in information that often leads to wrongly attributing patterns to random events (Heuer Jr., 1999). While cognitive processes lead us to believe that “patterned events look patterned, and random events look random” this is seldom the case (Heuer Jr., 1999: 130). Along the same lines as in the case of information selection this bias can have significant effects on the production of intelligence and its quality. Seemingly patterned events may be investigated and attempted to set into context, while seemingly random events go unnoticed although potentially vital for a particular intelligence product or, for example, more generally for strategic warning.

The lack of distinction of random and patterned information and events subsequently relates to another bias, that favours the attribution of events to “central direction” and to favour “internal” over “external” explanations such as random situational, social and environmental factors (Jervis 1976; Heuer Jr., 1999: 131, 134). With respect to further steps in the intelligence cycle this implies that the finished intelligence product may for example allude to deliberate actions of a government on a certain issue, when in fact the government’s actions may have been forced by voter expectation, military brass or situational factors that demanded a quick reaction under uncertainty. Similarly inconsistent policies may be attributed to “Machiavellian maneuvers” on the part of a government while they are actually a result of weak leadership (Jervis, 1976; Heuer Jr., 1999: 132). A contemporary example for this is much of the western political, journalistic and to some extent academic commentary about Chinese policies, which are often attributed to a sinister (anti-western and anti-US) grand strategy. However as Jacobson and Knox

(2010) point out, there are multiple groups within the Chinese government as well as outside of it that yield at least some influence on foreign policy decisions.

The above example of China is highly relevant to intelligence. If too much importance is attributed to an actor and his actions, this 'truth' would ill-inform policies. This in turn highlights that in the academic study of intelligence biases provide much-needed context to how knowledge and truths are produced. As stated above the fact that these possible cognitive effects are essential part of the curriculum for intelligence analysts indicates that biases regularly affect analysis and as such influence the production of knowledge as modelled in the intelligence cycle. In addition to these aspects of cold cognition there is, as also outlined in the context of information collection, motivational factors that can influence the perception and judgement of analysts in the production of intelligence reports.

In the case of 'hot' motivational biases, wherein information is not just processed wrongly, but rather actively used to serve pre-existing beliefs on the part of analysts. Analysts may hold their own preconceptions about any particular issue or topic that can influence their interpretation of information that is related to said topics. Gathered information may then be interpreted in a way that aligns to the beliefs and expectations of the analyst (Nickerson, 1998). This can be especially relevant when newly gathered evidence challenges or undermines a previous analysis.

In such a scenario motivational biases can take the role of a coping mechanism that helps to align contradicting evidence with the pre-existing beliefs and analyses (Jervis, 2006). This can take the form of a form of reluctance and stasis towards new information towards finding reasons to discredit said new evidence (Blaug, 2010). Finding reasons to discredit new information that question previous analyses

however may also be a sign of a form of self-deception, which equally serves to bring new information in accordance with prior beliefs (Jervis, 2006). Equally amounting to a coping mechanism is the tendency to overestimate one's own analytical abilities that can distort the perception to previous analysis (Blaug, 2010:69ff.). Motivational biases of this kind would not only carry forward to subsequent stages of the intelligence cycle, i.e. the translation into policies, but also stifle or even prevent efforts to refine analysis in ensuing cycles.

In addition to this, the theory of cognitive closure is especially relevant to the analysis stage in the production of intelligence. Cognitive closure, the desire to overcome ambiguity and uncertainty and to arrive at a firm believe, can be treacherous if it is related to underlying assumptions of an analysis (Bar-Joseph and Kruglanski, 2003: 78ff.). This desire can firstly lead to the adoption of wrong underlying assumptions and beliefs that jeopardise subsequent analysis efforts and following from this the information of policies in the ensuing steps of the intelligence cycle. Moreover cognitive closure could also prevent the adoption of different believes in face of changing circumstances if the cost of not adopting a new belief is too low (Jost et al., 2003; Bar-Joseph and Kruglanski, 2003: 80ff.).

Outside: Dissemination and Feedback

Once the gathered information has been analysed and moulded into a finished intelligence product, a report is disseminated to the appropriate recipients like ministries or centres of the executive. In this stage ‘outside’ the responsible agencies, intelligence is meant to inform decision-makers to enable them to design and execute optimal policies. Even though there are differences between recipients – some ministries will receive far less or only occasional intelligence reports compared to centres of the executive and their national security apparatuses – the dissemination and feedback stage largely resembles the transition between the collection and analysis stage. While analysts examine ‘raw’ information and convert it into a finished intelligence product, policy-makers receive finished products and have to translate these into policies.

Given the similarities one can observe the same scope for biases influencing how intelligence is being received and used for policies. Similarly to an analyst, decision-makers sometimes have to select among many reports on different issues and prioritise according to what needs to be addressed in terms of policy. Thus the same potential biases in selecting among intelligence report come into play for as in the case of selecting among information. Issues of consistency and balance in absorbing new intelligence reports can lead to them being interpreted in patterns of existing policy rather than as a topic for new political solutions.

Furthermore, the finished intelligence product is in most cases far from a clear-cut policy endorsement, but a set of “expressions of uncertainty and alternatives” (Herman, 1996: 142). This leaves enough scope for policy-makers to interpret received intelligence subject to their own prejudices and pre-existing beliefs and

adopt them accordingly. In addition to this, policy-makers are often selective as to what intelligence they read. Former Secretary of State Henry Kissinger allegedly was his own intelligence analyst and preferred to read raw information to finished intelligence reports. Moreover he preferred “secret single-source material” over more general assessments like national estimates (Herman, 1996: 142). This blurring of the red line, that is the separation of the intelligence production and policy-making stages has become an increasing problem over the last couple of years (Steiner, 2004).

The access of high-level policy-makers to raw intelligence undermines the fundamental idea of intelligence informing policies, but additionally provides even greater opportunity for motivated biases. Given the access to raw information, policy-makers can use intelligence more easily as a means of policy rationalisation, that is to select and interpret information and intelligence with the motivation to support underlying beliefs and planned policies (Nickerson, 1998). Depending on the level of government this motivation can be driven by the desire to please superiors by bringing intelligence in accordance with their “*Weltanschauung*” for example in order to secure or not to jeopardise funds (Johnson, 2003b: 640).⁷

This points to a basic ‘conflict’ in the role of intelligence between the inside and outside stage within the intelligence cycle over the role intelligence should play. Intelligence makers usually still interpret their roles along the lines of the original design of the intelligence-policy relationship, that they do not have to build support for a policy or belief, nor do they have to provide clear-cut decisions (Jervis, 2010a). Policy-makers on the other hand usually desire exactly that – support for their respective policies and intelligence reports without uncertainty that provide a

⁷ Emphasis quoted from original.

simple policy decision (Jervis, 2010a: 190ff.). This discrepancy in the understanding of the role of intelligence could even be further enhanced if the politicians do not hold merely motivational biases but show signs of power corruption.

Corruption of power manifests itself through the cognitive features of the corrupt individual and the organisational hierarchies in which the corruption evolves (Blaug, 2010). High-power individuals replace the cognitive processes of the organisation with their own in the process of power corruption. Subsequently a shift occurs towards the needs of the high-power individual and towards his or her positions when interacting with subordinates, so that the cognitive processes of that individual are reflected by them (Keltner et al., 2003). This substitution process is carried forward so that by adopting their leader's position it reinforces the leader's cognitive tendencies (Blaug, 2010). This could be read analogous to the intelligence cycle wherein the feedback of policy-makers is carried forward to subsequent cycles.

Blaug's (2010) account of how power corruption assert itself in organisation could therefore be a factor in itself through the feedback from power-corrupt politicians or metaphorical to describe the process how through feedback intelligence agencies come to accept a prevalent view among policy-makers and adopt it. Either way, a form of politicisation of intelligence would influence subsequent cycles in which the political motivation is identical with the cognitive predisposition of an individual or several policy-makers. In contrast to biases introduced at the inside stage, which can be corrected for, this bias is hard to rectify since intelligence agencies have to incorporate the feedback at least to some extent. Hence, unless

new intelligence analysis can change beliefs of policy-makers and lead to a new outcome, subsequent cycles will have a reinforcing effect.

Overall the outline of this section underlines that cognitive as well as motivated biases can influence the intelligence production process at any stage of the intelligence cycle. While 'hot' biases are presumably mostly restricted to particular political issues that are for one reason or another very delicate, the problem of biases in information processing are far more ubiquitous and hardly avoidable. In this context it is important however to point out that not all of these 'cold' biases are necessarily inherently bad and they do not necessarily need to lead to outright failure. Nonetheless such biases can be more easily corrected for at subsequent steps within the cycle or in ensuing new cycles of the production process. Biases introduced through authorised directives such as feedback from policy-makers however would be sustained through following steps and cycles given the hierarchical nature of the relationship.

Case Study: Pre-War Intelligence Assessments of Iraqi WMDs

The build-up to the Iraq War provides a formidable case study given the unusual extent of openly available material of intelligence efforts and the multitude of biases at several stages in the intelligence cycle that seem to have influenced what turned out to be a flawed production process. The tension between intelligence's supposed role of informing policies and how it is actually utilised by policy-makers reveals that due to biases operating through the cycle(s) intelligence is not an objective truths. The case of Iraq clearly highlights how politicians desire intelligence that entails clear-cut policy options, or as one senator in the US said "we must have intelligence that does not allow the president to make wrong decisions about going to war" (Odom, 2008: 317). Meanwhile intelligence can never be fully free of biases, given that humans are at the very least subject to the inherent 'short-cuts' our brain takes and can only provide best guesses (Blaug, 2010; Odom, 2008).

In addition to 'short-cut' cognitive biases this case study also provides some insights as to how motivated biases can influence the intelligence production process and more importantly demonstrates what happens to biases once they have been introduced to the cycle. The section will look at the case of the U.S. government in great detail, which is mostly owed to the abundant information available. Nonetheless this section will also examine the intelligence process of the UK in the run-up to the war. In both cases the focus will lie on what can be deemed to be biases in the analysis and usage of intelligence and whether biases were carried forward into ensuing cycles in the production process.

U.S. Intelligence

Shortly after the main combat operations were finished and a new government established in Afghanistan, the attention of the U.S. government started to shift towards Saddam Hussein and Iraq as a potential security concern (see Woodward, 2004: Prologue and Chapter 1). On a basic level, “the Bush administration's case for the war was that Saddam Hussein was a great menace and that overthrowing him was a great opportunity for changing the Middle East” (Jervis, 2010a: 188). Nevertheless the Bush administration sought to specify the notion of Saddam Hussein being a menace given that “in a democracy policies must be – or at least be seen as being – grounded in intelligence” (Jervis, 2010a: 187). Therefore, concomitant to the developing war plans, intelligence efforts against Iraq were expanded.

As indicated by the intelligence cycle, gathering of information was the first step towards a comprehensive intelligence analysis of the potential dangers of the Iraqi regime. This first step however was already riddled with biases of various kinds. Due to the lack of information from Iraq in particular concerning weapons of mass destruction (WMD) programmes, it was assumed to start gathering efforts where they were left off at the end of the 1990s when weapons inspectors were banned from the country. Previously the IC kept substantial intelligence programmes against Iraq, however had to rely mostly on information provided by weapons inspectors and what they learned about Iraqi programmes and the deception methods to hide them (SSCI, 2004: 258ff.; Jervis, 2010b; WMD Commission, 2005: 157ff.). Therefore, when the IC resumed their intelligence gathering efforts

they did not have any direct human sources in a country with inner power circles that are notoriously hard to penetrate (WMD Commission, 2005: 158ff.).

This lack of HUMINT sources led the fact that collectors searched for human sources especially where they could find them – among defectors of the Iraqi National Congress (INC) (Jervis, 2010b; WMD Commission, 2005). This tendency to focus on a narrow set of human sources entailed reliability issues with regards to these sources also because it increased the reliance on sources of liaison intelligence services (Phythian, 2006). In particular because most sources were from the INC and its sphere of influence it should have been assumed that HUMINT gathered this way might be one-sided. The scarcity of human sources and their narrow selection would later translate into difficulties in the analysis process, which will be discussed below.

Technical means of intelligence collection such as SIGINT were similarly one-sided. In the late 1990s these means mainly targeted Iraqi procurement efforts of products that were suspected to be part of a WMD. Given that most such materials are of dual use nature, i.e. can be used in a civilian-industrial manner, rendered much of the intelligence more or less meaningless without further context (WMD Commission, 2005: 163ff.). IMINT faced comparable limitations in providing information on Iraq and its WMD programs. While IMINT can deliver information on infrastructure and signatures of ‘dubious’ activity, it is also severely limited without the provision of context from other sources (WMD Commission, 2005: 164ff.). In addition to this, most IMINT capabilities appear to have been occupied with military gathering efforts for the concomitant war planning (SSCI, 2004).

Biases especially in relation to HUMINT were carried forward into the analysis stage of the intelligence production process. As outlined above, in a desire to secure human sources that could provide information about Iraq's WMD efforts the 'clientele' sampled was overly narrow. This aspect was nevertheless not taken into consideration when analysing the information provided by them. In what could be described as over-compensating for the successful deception by Saddam Hussein in the early 1990s, intelligence analysts discounted those sources with the most accurate information as disseminating Iraqi propaganda (Phythian, 2006: 407ff.). Conversely, although some of the INC sources were discounted by the IC, it was similarly unaware that some of their other sources simply fabricated information as in the case of the now infamous Curveball (Jervis, 2010b).

Curveball was a source of the German intelligence service BND and as an alleged engineer on a biological weapons program one of the key witnesses in the case of the Bush administration (Jervis, 2010b; Phythian, 2006: 412ff.). Problems in the management of the source aside, the issue of reliability arose because Curveball's evidence fitted what the IC had gained in the meantime. Information provided by Curveball was thus not further questioned given the apparent consistency with other intelligence. It turned out however, that his "information fit[ed] so well with what was known because he had searched the Internet for it" (Jervis, 2010b: 142; WMD Commission, 2005). The tendency not to question could be ascribed to various forms of bias, such as a desire for cognitive closure, confirmation bias or a motivated bias where increasing focus by the IC and the press reporting on a possible war with Iraq, may have increased the desire to satisfy their superiors.

The example of Curveball is representative of the handling of other sources. In addition to the thin base of (human) sources the lack of identifiers that would provide some description of the background and credibility of these sources led to a lack of cross-checking and questioning of information, credibility and underlying assumptions (Jervis, 2010b). In addition to Curveball's fabricated evidence on biological weapons, information that Iraq tried to reinstate its nuclear weapons program by acquiring aluminium tubes to build enrichment facilities was on equally shaky grounds. While a utilisation for enrichment centrifuges would have clearly pointed towards renewed efforts to build nuclear weapons, tubes of this kind are a dual-use item as outlined above. A CIA analyst with a background in the nuclear (enrichment) industry attested that the tubes could only have been purchased with the construction of centrifuges in mind (Woodward, 2004; Jervis, 2010b).

Nevertheless specialists at the Department of Energy (DOE) declared that the specifications of the tubes did not fit any modern type of centrifuge of the kind Iraq constructed in the early 1990s and that they could only be used for an older model after alterations were made (Woodward, 2004). Analysts at the CIA "assumed the tubes [to be] for centrifuge rotors and then tried to find a rotor design that seemed closest to match" (Conway, 2012: 496). Because of the background of the analyst, the CIA's findings were quickly passed on to policy-makers before other agencies of the IC could review their report. When dissent emerged the "CIA could not easily give up its established position", which may have been a reason for analysts to alter the specifications (Jervis, 2010b: 143f.).

The actual intended use of the aluminium tubes for Iraq's conventional rocket weapons program was also dismissed as an elaborate deception by the Saddam

regime (Phythian, 2006). Information that seemed to contradict the established position was interpreted as “intentional deception and therefore as *support* for the prevailing analytical view” (WMD Commission, 2005: 73).⁸ This highlights how cognitive biases not only have forced analysts to fall back on established thinking patterns, but also how they searched for confirmation. Moreover this bias was carried forward into subsequent steps as the underlying assumption of the deceiving and WMD-producing Iraq of the 1990s was never questioned.

A similar observation can be made with regards to the claim that Iraq tried to acquire uranium – and specifically yellowcake – from Niger for the purpose of developing nuclear weapons. The alleged attempt to purchase yellowcake from Africa was seen as another piece of evidence pointing towards renewed efforts by Iraq to develop WMDs and specifically nuclear weapons. Nonetheless the source for this claim came also from a foreign service and its content was deemed questionable by the American IC (Woodward, 2004; Jervis, 2010b). Nevertheless the assertion was expressed by President Bush in his State of the Union Address. Even though it emerged that the claims of Iraqi procurement of yellowcake were based on a forgery, the CIA and Defence Intelligence Agency (DIA) still continued to claim that “Iraq may have been seeking Uranium from Africa” (SSCI, 2004: 77; Woodward, 2004).

In the process of analysing gathered information the fundamental bias of falling back into established thinking patterns continued to influence the intelligence production cycle. Based on Iraqi deception and a weapons program that turned out much more extensive than expected in the 1990s, analysts presumed a similar

⁸ Emphasis quoted from original.

situation at the present time. The various sources of information were badly integrated, to the effect that technical intelligence relating to WMDs was crowding out any consideration for political aspects. Subsequently no consideration was given to whether the Saddam regime may just have given up its WMD efforts after the dismantling of its programs in the 1990s (WMD Commission, 2005: 173ff.).

Subsequently conflicting evidence was often just declared to be part of Iraq's deception strategy due to the underlying beliefs of analysts (Jervis, 2010b). This bias itself was carried forward into subsequent analysis cycles when more information became available. More specifically, when the resumed weapons inspections did not turn up any indication of the Saddam regime having rekindled their WMD program, the IC still did not carry out a renewed analysis to re-verify their conclusions (Jervis, 2010b: 135). Again the absence of proof for the IC did seem not imply disproof of their theories. Thus, with regards to analysis, the IC did not just fall back into established patterns of thinking, but also seemed to have been subject to a perpetuated confirmation bias in which negative evidence simply got overlooked or explained away (Jervis, 2010b: 151).

Unlike the issues of aluminium tubes and uranium from Niger, the alleged linkage between the Saddam regime and al Qaeda was discounted early by the IC (Immerman, 2008: 18; Woodward, 2004: 190ff., 289ff.). Nevertheless at the highest levels of government the possibility of a link between al Qaeda and the Iraqi regime was dealt with the same logic, that absence of evidence does not imply that there was no link (Woodward, 2004: 290). Similarly to alleged Iraqi deception, "[t]he absence of firm evidence was to be expected because al Qaeda had tight operational

security [...] “, which caused the Vice President and his staff to keep the issue in discussion despite the IC’s dismissal of evidence (Woodward, 2004: 290).

This in turn points towards a more general matter of motivated bias seemingly borderline to the politicisation of intelligence. In particular on the issue of links to al Qaeda, the head of the British intelligence service MI6 allegedly remarked, that “intelligence and the facts were being fixed around the policy” of wanting to remove Saddam Hussein (Jervis, 2010b: 132; Conway, 2012: 504). In addition to this assertion, there are more obvious examples of how politicians demonstrated their interest in the issue if not exerting influence on it. Vice President Cheney “camp[ing] out” at the CIA headquarters at Langley “watch[ing] over analysts’ shoulders” is highly unusual behaviour for the incumbent of the second-highest office in the country and in any case for a politician to cross the aforementioned red line (Immerman, 2008: 20).

The Vice President also frequently ignored the IC on the reliability of HUMINT as in the case of sources related to the INC (Jervis, 2010b: 140). These sources were most likely pursuing their own goals, but they also provided information that fitted decision-makers’ policy goals towards Iraq. Thus some parts of the Bush administration dismissed evidence contradicting their beliefs and seemingly tried to point the IC ‘in the right direction’. This is supported by allegations that dissenting voices within the IC were transferred away from Iraq related projects in order to secure that even if not all evidence is confirming as in the case of al Qaeda links, at least it is not contradicting (WMD Commission, 2005: 192f.). Hence it can be assumed that analysts and the IC in general probably sought to “please policymakers”, given the fact that Mr Cheney visited Langley and that dissenting

views were met with “a barrage of questions” (Immerman, 2008: 18; Jervis, 2010b: 133).

Jervis (2010b) excludes the possibility of actively politicised intelligence analysis in his examination of the WMD intelligence relating to the war in Iraq. Nevertheless he acknowledges that while there was no active manipulation, that the “subtle form of politicization”, in which the general political environment influences provides the direction for what analysts believe and say (Jervis, 2010b: 133). This almost alludes to a notion of power corruption as outlined by Blaug (2010) in which the beliefs of top government officials of the Bush administration were transferred to the IC through the hierarchical relationship between the two. In this sense the Bush administration did not politicise or manipulate specific evidence, but rather politicised the “entire [intelligence] process” (Jervis, 2010b: 131).

The methodology applied in analysing some of the evidence served the same purpose. The CIA used a so-called ‘Red Team’, a team of analysts who had not reviewed the information before, to get an alternative view on the evidence in order to test their hypotheses. According to Conway (2012: 490), however this methodology has a history of being applied to “interpret data to fit preconceived conclusions”. It appears that parts of the administration wanted the IC to find evidence to specifically serve their policies. Conway (2012: 496) further asserts that “[t]he presumption that Iraq would take advantage of the departure of [weapons] inspectors to restart his WMD efforts essentially became a hypothesis in search of evidence”. A further indication of confirmation or even motivational bias is that CIA agents around the world “were told to seek information about Iraq’s WMD programs” based on the above presumption (Jervis, 2010b: 150).

The UK Case

In the United Kingdom, the aftermath of the war in Iraq and the preceding intelligence efforts were reviewed in a report authored by Lord Butler. In contrast to the rather stark criticism of the SSCI and WMD Commission in the United States, the Butler report does not find any immediate problems with the work of the UK intelligence services and the Joint Intelligence Committee (JIC). Correspondingly to the U.S. the report did not find any deliberate distortions. Nor did the report find that “judgements [were] being pulled in any particular direction to meet the policy concerns of senior officials on the JIC” (Butler, 2004: 166). Nevertheless it appears that the IC in the United Kingdom was similarly biased in their underlying assumptions against which new information were assessed.

Similarly to the United States, under-estimates of Iraqi WMD activity in the 1990s served as background for the renewed intelligence efforts and led mostly to worst-case scenario estimates (Butler, 2004: 112). Thus, the intelligence production cycle was carried out against the backdrop of a held belief and as such this bias was automatically carried forward within the cycle. This belief may have been reasonable at the time, however when information provided by some human sources was found to be doubtful it appears that no renewed assessment took place (Butler, 2004: 100ff.). Similarly to the United States this was also not the case after the resumed weapons inspections failed to reveal evidence of WMD programmes (Butler, 2004: 92; Jervis, 2010b: 136).

In addition to this, the report finds that while there was no direct politicization of evidence that the JIC could not stay completely impartial when the Blair government asked for a dossier that it could draw on to advocate its policy. The

Butler (2004: 168) report found that “[...] in translating material from JIC assessments into the dossier, warnings were lost about the limited intelligence base on which some aspects of these assessments were being made. Language in the dossier may have left with readers the impression that there was fuller and firmer intelligence behind the judgements than was the case”. Thus the presentation of the intelligence was chosen so to fit the policy goals although the intelligence was not distorted and only “went to (although not beyond) the outer limits of the intelligence available” (Butler, 2004: 168).⁹

The government dossier became infamous for the so-called 45-minute claim in which it is asserted that the Saddam regime could mobilise and deploy chemical and biological weapons within said time period (UK Government, 2002: 5, 17, 19). This assertion drew wide public attention after its publication since some newspapers took it to mean that it referred to strategic weapons, i.e. missiles with chemical or biological agents as it was not further specified in the dossier (Butler, 2004: 125). This conclusion may have also been reached due to the dossier containing information about the extension of missile ranges that could possibly targeted at countries within the region including British military bases on Cyprus (UK Government, 2002: 5). The representation of the 45- minute claim in the dossier however was more of an omission of the actual intelligence the JIC had gathered.

The original JIC report argued with reference to the 45-claim that “[...] chemical and biological munitions could be with military units and ready for firing within 20-45 minutes” (Butler, 2004: 126). The inclusion of munitions already alludes to a more conventional use, but there was even a judgement that the report referred to

⁹ Parenthesis quoted from original.

battlefield munitions and their deployment time to their designated military units (Butler, 2004: 126). The Butler (2004: 127) report insinuates that this judgement was deliberately omitted so as to give the claim an “eye-catching character”. The head of the CIA George Tenet allegedly called it in private “they-can-attack-in-45-minutes shit”, and warned the British government not to include the claim (Woodward, 2004: 190).

The U.S. as and UK case of intelligence efforts in relation to the war in Iraq highlight the influences biases can wield on the intelligence production. Both cases show how cognitive short cuts, confirmation and motivational biases can affect judgements in the production cycle and are carried forward into subsequent steps and cycles. These cases thus challenge the conventional wisdom of intelligence speaking truth to power and the model of the intelligence cycle that supposedly produces these truths. Nevertheless they also show how the model of the intelligence cycle highlights how biases ‘flow’ with the information through the cycle and thereby allow conclusions as to where it was introduced and how it affected the outcome.

A Bias Cycle of Intelligence

The previous sections of this dissertation have sought to demonstrate that the notion of intelligence amounting to speaking truth to power can be discounted given the presence of biases at every stage of its production. Moreover it was highlighted how these biases are not just affecting the production momentarily, but can influence subsequent stages and ensuing cycles in the production of intelligence. This does not, however, render the model of the intelligence cycle obsolete. On the contrary, the latter of the two aforementioned points underlines that the intelligence cycle – as a description of the production process – can work as an analytical tool to examine ‘flawed’ intelligence operations.

Betts (1979) rightly relativized, intelligence ‘failures’ to be inevitable given the inherent uncertain nature of intelligence. Nonetheless, the intelligence cycle, when accounting for biases, allows tracing the various individual steps at which biases may or may not have influenced subsequent steps. Thus it could help to further discern the stigma of intelligence failure that is applied automatically if success does not materialise. Betts (1979: 61ff.) points out that intelligence is, in theoretical terms, generally only described through negatives, i.e. of how failures are produced. In accounting for biases – some of which are unavoidable given that they are an inherent cognitive feature of our brains – the intelligence cycle would avoid the dichotomy of failure and success and provide context to the knowledge that is being produced.

The case of U.S. intelligence about Iraqi WMD efforts underlines that the traditional model of the intelligence cycle clearly does not work in so far as it only describes the production of what supposedly are truths. The inclusion of biases into

the cycle model gives the perceptions, judgements and analysis in general the context in which it was generated. In his examination of the Iraqi WMD intelligence Jervis (2010b) rightly points out that some beliefs held by the IC – such as the assumption that the Iraqi regime would want to renew their WMD efforts and deceive the international community – may have been appropriate at the time, given the available information. Ex-post these assumptions were however revealed to be wrong since insufficient consideration was given to theories that deviated from previous experiences in the 1990s.

Subsequently the biased underlying assumption was carried forward throughout the cycle and provided the backdrop against which information in ensuing cycles was analysed. The bias could have been rectified through a repeated interaction of new collection and analysis efforts. Through checking new emerging evidence against established analysis it should emerge whether previous collection or analysis was flawed, provided that said renewed efforts are not subject to the same biases. In the case of the United States, however the bias was retained since no new analysis was conducted after new evidence was provided by the restarted weapons inspections.

The above-mentioned underlying assumption may also have been retained due to the feedback the IC was receiving from policy-makers, especially top Bush administration officials. In particular the insistence of the Vice President's office to continue to investigate the alleged Iraqi links to al Qaeda and to include them into the presentation in the United Nations Security Council highlights that policy-makers and their feedback were an integral part in the production of intelligence reports. As mentioned in the previous section it is reasonable to assume that, while there may not have been a deliberate distortion of evidence, the IC probably wanted to please policy-makers on some level. The example of the dossier created for

policy advocacy purposes by the Blair government shows how intelligence can subsequently be used for policy goals. The convenient omission of judgements about the biological and chemical munitions held by the Iraqi regime underlines how important it is to provide context in the production of intelligence.

With respect to feedback by decision-makers, the hierarchical relationship between policy-makers of the executive and the IC is an important aspect to take into consideration. This relationship implies that the context that is given to the production of intelligence through the bias introduced is sustained until revoked by policy-makers, since feedback has to be taken into account by the IC for their work in subsequent cycles. Blaug's (2010: 102ff.) concept of cognitive substitution that lets corrupted judgements be taken over by subordinates in a hierarchical relationship is rather fitting in this context. Not only can this apply to the relationship between government officials and the IC, but the notion of substitution cycles can also serve as an analogy of how biased judgements are carried over in the intelligence production process. This in turn demonstrates that it is important where a bias has been introduced in the cycle, given that a hierarchical relationship like that between the IC and politicians probably can sustain a bias for longer. In contrast to this, a bias that is introduced through gathering or analysis may be corrected for by subsequent steps.

In the case of the Iraq war, it seems that top government officials helped to sustain biased assumptions and judgements over several cycles through this relationship. If there was a questioning of previous assumptions, Vice President Cheney's appearances at the CIA headquarters to "watch over analysts' shoulders" will certainly have contributed to these assumptions being kept (Immerman, 2008: 20). This also alludes to the aforementioned notion of the red line that supposedly

divides the IC from policy-makers in order to ensure that intelligence provided is the objective truths. The example shows that while the hypothesis of intelligence speaking truths to power cannot be sustained given the cognitive process we are subject to, the inclusion of biases can indeed provide context to decisions that were arrived at.

The case study of the Iraq war was picked in no small part for reasons of convenience given that it provides an example of multiple biases in the production of intelligence and more importantly because the case provides plenty of (declassified) material to draw from. Nonetheless the case might also constitute an extreme outlier in the wider sample of intelligence production and policy usage. An article by Phythian (2006) cited in the context of earlier sections, asks in its title whether pre-war intelligence on Iraqi WMDs is the “perfect intelligence failure”. This highlights that this case is generally judged to be fundamentally flawed given the ex-post findings. Therefore the inaccurate nature renders biases to be judged as intrinsically negative in their effects.

Biases are inherent features of human cognition or motivated through emotions and beliefs and thus integral part of perceptions and judgements, which are underlying intelligence analysis and production. Since biases are part of human cognition they are therefore not inherently detrimental to the production of knowledge or intelligence and often only constitute cognitive ‘short-cuts’. Moreover as recent findings by for example Mercer (2011) point out, even emotional beliefs often made out to be the source of ‘hot’ cognition, are an integral part to other cognitive features like rationality. Nevertheless biases – if correctly identified – provide context to the perception and judgements of each of the individual production steps as outlined in the model of the intelligence cycle. A cyclical model accounting for

biases – a bias cycle of intelligence – would therefore not just be able to point ex-post towards intelligence failures, but could provide answers as to how flawed intelligence was produced and why it was not automatically corrected for in the production process.

Conclusion

Intelligence theory is often still predicated on the notion that it speaks truths to power and informs policy decisions. The cognitive processes and related biases involved in producing said intelligence however seriously question whether intelligence can be anything more than a truth that is subject to the context of its production. Indeed the case study of the pre-war intelligence assessments of Iraqi WMDs suggests that biases determined the outcome of the intelligence production process. Though the concept of intelligence speaking truths to power can be discounted, the intelligence cycle model that is often seen as representative of this concept provides useful analytical insights beyond merely outlining the intelligence production process. This process model allows tracing how biases are introduced into the production of intelligence and how they affect further steps and cycles in the production.

While the case study of intelligence efforts preceding the war in Iraq is generally negatively viewed in relation to the effects of biases, this dissertation also highlighted that many biases are inherent cognitive features and can thus not be discerned from the production of supposed truths. Given their intrinsic nature, however, biases have to be accepted as a feature that is subsequently intrinsic to the intelligence process and should therefore not automatically be viewed as a flaw or failure. Beyond this binary view of intelligence success and intelligence failure, this dissertation suggests that a bias cycle of intelligence that accounts for said cognitive features provides context to the production of intelligence that is crucial in any ex-post analysis of the production and usage of intelligence for policy purposes.

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