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# How does Intelligence Analysts Operate?

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An Essay on  
Cognition in Intelligence-Led Policing

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POLITICAL SCIENCE | SPRING TERM 2019  
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# Abstract

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## **Thinking in Intelligence Analysis. The cognition of analysts in assessment and verification of information.**

Cognition in Intelligence Analysis is a crucial compartment of understanding how the analysis is shaped. By acknowledging Intelligence Analysts as human, they become liable to the same cognitive constraints that shape everyday thinking. This study outlines how cognition is used in the analysis. It aims to explore how cognition influences how the analyst assesses information and verify their assessments. To do so, the study is a case-oriented study on Polisregion Syd's Intelligence Department. Interviews were conducted and the collected material was analyzed with a cognitive perspective. The theoretical framework was developed by merging theory of individual cognition with theory that took into account the institutional context in which the analysis was implemented. The analysis revealed that analysts aimed to be cognitively as reflective as possible. But due to limited resources, cognition fell back to intuition and informal approaches to make analysis achievable. Also, there was a difference between how the analysts used cognition, and how they perceived its effects on the analytical product. Conclusively, the thesis provides a linear and structured analysis that can be easily deconstructed and further used to create additional, subsequent hypotheses for future studies.

Keywords: [Intelligence] [Cognition] [Decision-making] [Police] [ILP] [Intelligence-Led Policing].

Word Count: 17 619

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# Abbreviations

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PB: Perceptual Biases

IA: Intelligence Analysis

ILP: Intelligence Led Policing

SI: Strategic Intelligence

OI: Operative Intelligence

LoA: Logic of Appropriateness

DPT: Dual Process Theory

# 1. Introduction

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“The reason why all description is selective is, roughly speaking, the infinite wealth and variety of the possible aspects of the facts of our world. In order to describe this infinite wealth, we have at our disposal only a finite number of finite series of words”

– Karl Popper<sup>1</sup>

What determines how an intelligence analyst analyzes information? In the amassed information, something has to signal to the analyst that there is something that stands out. What this something is, and why it presents itself important to the analyst assessing the information is fundamental for understanding the predictions of analysts. Cognition of intelligence analysis (IA) is an interesting subject. Yet, few academic studies have been made on the subject, leaving it somewhat undisclosed. This is where the study will set foot. This thesis aims to understand and explore how cognition influences how analysts assess information and verify their assessments within the Polisregion Syd’s Criminal Intelligence department. Emphasis will be on how information is assessed and verified.

## 1.1 Purpose of Study

In the past, the police had little information about when and how crime would occur. Today, the police are amassing a relatively large base of information, yet, are not very good at utilizing it.<sup>2</sup> A main component of using information efficiently lies in how it is evaluated. What signals what is important and what is not is imperative. However, those working to analyze criminal information has received little attention in academic research. This paper will, therefore, address how intelligence assessments are made in Intelligence-Led Policing (ILP) by outlining, questioning and problematizing how cognition works during the analysis.

Firstly, due to how the cognitive aspects of Intelligence Analysis (IA) are still relatively unexplored in terms of practical performance, the overarching purpose of the thesis is to explore cognitive tendencies in IA. Considering that intelligence helps support, mitigate, influence or merely understand various harmful threats, disclosing analytical or operational procedures is generally presumed to be synonymous with loss of potentially useful advantage.<sup>3</sup> The necessity of confidentiality has therefore long held intelligence at an arm length of academic studies. Indeed, the lack of academic insight has even left intelligence in an absence of general theory.<sup>4</sup> In recent years, however, intelligence has become more transparent. In this context, the study has been granted access to an Intelligence Department that operates through IA on criminality.

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<sup>1</sup> Popper, Karl 2003, *The Open Society and Its Enemies, Volume Two: Hegel and Marx*, London: Routledge, p, 289.

<sup>2</sup> Ratcliffe, Jerry, 2016, *Intelligence-Led Policing*, Second Edition, London, Routledge, p, 97.

<sup>3</sup> Warner, Michael, “Sources and Methods for the Study of Intelligence” in Johnson, Loch K. (red.), 2007, *Handbook of Intelligence Studies*, London, Routledge, p, 17.

<sup>4</sup> David Kahn, 2001, “An Historical Theory of Intelligence”, *Intelligence and National Security*, 16:3, 79-92, p, 79.

As a central point to this thesis, what shapes the product of IA is not only the access to information, the techniques through which information is analyzed, or the set demands of the finalized product, but also how the analyst perceives the information available.<sup>5</sup>The main aim of this thesis is therefore to explore the cognitive dispositions of analysts within an organization, and how they potentially come to influence how information is assessed and verified.

To research this, I have chosen a case-oriented oriented approach within Polisregion Skånes Intelligence department. This department actively employs IA and its analysts will assist as research subjects of the thesis. To conceptualize the cognitive approaches of analysts, the thesis will apply contemporary theories of cognition and decision-making.

The thesis aims to answer:

- 1) *What signals to an analyst what information is important when making an Intelligence Assessment?*
- 2) *How does the analyst verify their assessments?*

Secondly, this thesis sees ILP as IA modified to the field of policing and therefore as something distinct. Intelligence *per se* as a practice and function has long been assumed to be universal in nature. Clearly, this is a supposition that assists in reducing the multifaceted process through which intelligence is conducted.

With the addition of intelligence into new types of employment, previous institutions and customs will evidently come to influence how intelligence is conducted. As evident in research on ILP, there is a lack of understanding to what ILP actually entails, its mission, goals and objectives and importantly how the formula and models of ILP are to be effectively applied in practice.<sup>6</sup> For instance, ILP in Sweden is different from that in United States, due to the jurisdictional differences.

While this thesis will not aim to radically challenge the contemporary field of research, instead it takes interest in Sweden and a specific department. This may help bridge understanding further. On the other hand, what scope there is for this thesis is therefore limited to the analytical department of a police organization in a regional context.

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<sup>5</sup> Heuer, Richards J., 2010, *Psychology of intelligence analysis*, Center for the Study of Intelligence, Central Intelligence Agency, Washington, D.C, p, 2.

<sup>6</sup> McGarrel, Edmund F. et.al, 2007, “ Intelligence-Led Policing As a Framework for Responding to Terrorism”, *Journal of Contemporary Criminal Justice*, Vol. 23, No. 2, May 2007, 142-158, p, 143. Sheptycki, James, “To go beyond the cycle of intelligence-led policing”, In Phythian, Mark (red.), 2013, *Understanding the intelligence cycle*, Routledge, London, p, 99.

## 1.2 Relevance of Research

The end of the Cold-War and the evolution of intelligence into more than a military instrument<sup>7</sup> has created a new demand for research on intelligence and its components. With the use of intelligence as an instrument becoming more frequent in new areas of employment, both in the private and public sector, in the national and global arena, the field of research will only expand.<sup>8</sup> As such, in recent years, studies on intelligence has introduced the field with a growing pool of diverse research, stretching from abstract reviews of collection<sup>9</sup> to discussions on a particular departments role and purpose.<sup>10</sup>

Intelligence as a benefactor to decision-making and security today encompasses monetary adaptations, such as Business Intelligence and technological approaches, for instance, embodied in the European Union's Joint Research Centre Institute for Prospective Technological Studies.<sup>11</sup> It also, as argued by Michael Herman, offers new ways to think about fundamental agency of representative actors and the overarching power-structures that it retains and recreates, due to how the assignments of intelligence is to optimize-resources.<sup>12</sup> More so, by unpacking what intelligence entails, the ability to emphasize different components has increased the understanding of how intelligence, as an ongoing process, functions. Naturally, it has also revealed reoccurring shortcomings in how the employment of intelligence fails to live up to its demanded above-average standard. Especially, the those employed in the analysis of intelligence has received emergent attention, where being 'wrong' has transformed from something assumed to depend on access to material, to something that could be linked to individual perceptual beliefs. Along with this realization has been the attempt to is bridge research on IA with other schools of research.

That being said, few academic studies have been able to accurately convey a clear representative depiction of the cognitive processes through which information is consumed, reshaped and subsequent reproduced. In fact, there is a clear lack of studies that deals with the practical pursuance of intelligence, and less so ILP, in its contemporary or future dimension. What research has been made on the cognitive elements of IA has primarily been conducted by an outside-in perspective, bridging hypothetical propositions of knowledge with models borrowed from the psychological school of thought to create abstract models of possible cognitive interferences. This has very much situated research on cognition as inherently abstract, often without any real connection to a practical outcome.

However, there are a few noticeable studies that have been able to get an inside-out perspective. Gunilla Eriksson's research on the culture-of-thinking inherent to the Swedish Military Intelligence (MUST) reveals what kind of knowledge and information is perceived to be considered useful by an organization in a context

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<sup>7</sup> Marrin, Steve, 2007, "Intelligence Analysis Theory: Explaining and Predicting Analytic Responsibilities", *Intelligence and National Security*, 22:6, 821-846, p, 835.

<sup>8</sup> Svendsen, Adam D. M., 2012, *Understanding the globalization of intelligence*, Palgrave Macmillan, Basingstoke, p, 34-35.

<sup>9</sup> Bauman, Zygmunt et. al, 2014, "After Snowden: Rethinking the Impact of Surveillance", *International Political Sociology*, 8, 121-144.

<sup>10</sup> Mark Stout & Michael Warner, 2018, "Intelligence is as Intelligence Does", *Intelligence and National Security*, 33:4, 517-526.

<sup>11</sup> Agrell, Wilhelm, 1998, *Konsten att Gissa Rätt: Underrättelsevetenskapens Grunder*, Lund, Studentlitteratur, p, 73.

<sup>12</sup> Herman, Michael, 2002, *Intelligence services in the information age: theory and practice*, Frank Cass, London, p, 12.



of duress and high-stakes.<sup>13</sup> In turn, the study reveals how such a culture creates perceived appropriate behavior among its employees. Also, Peter Wright's *Spycatcher* provides an organizational outlining of the fabled British Intelligence organization of MI5.<sup>14</sup> Although Wright describes the organization as rather dull, the work reveals a formidable system of informal rules behind the machine-like facade.<sup>15</sup>

### 1.3 Structure of Thesis

The thesis will first outline a conceptual framework of intelligence, IA and how it operates. The section will also provide definitions and, while describing a relatively secret world of confidentiality, provide as much insight as possible. After this, the theoretical framework will be defined. Starting by introducing how heuristics and biases are inherent to human cognition, the theories will then be outlined, and the chapter will end by presenting how the theories are presumed to operate in cohesion. Thirdly, the methodological framework will be outlined. The focus will be on how researching an Intelligence Department from the inside-out results in several involuntary methodological complications, that will be maneuvered to best fit the thesis. Fourth, the analysis will be held, applying the theoretical framework to the collected material by an abductive approach. Fifth, the analysis will review the collected material according to the theoretical framework. Lastly, a discussion regarding results, implications and further research will be held.

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<sup>13</sup> Eriksson, Gunilla, 2013, *The Intelligence Discourse: The Swedish Military Intelligence (MUST) as a Producer of Knowledge*, Örebro Universitet, Diss. Örebro : Örebro universitet, Örebro.

<sup>14</sup> Wright, Peter, 1988, *Spycatcher: the candid autobiography of a senior intelligence officer*, Dell, New York.

<sup>15</sup> Other mentions include: Jervis, Robert, 2010 *Why intelligence fails: lessons from the Iranian Revolution and the Iraq War*, Cornell University Press, Ithaca, N.Y. Johnston, Rob, 2005, "Analytic Culture in the US Intelligence Community: An Ethnographic study", *Center for the Study of Intelligence*, Central Intelligence Agency, Washington, D.C.

## 2. Conceptual Framework

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### 2.1 What is Intelligence?

If a study on cognition of IA is to be conducted, it is necessary to outline a functional definition of what intelligence entails, understand how the analysis is implemented and to what purpose. A good place to start in terms of what intelligence entails is Sherman Kent's definition of intelligence as 1) An activity 2) Which an organization perform to 3) Produce knowledge for decision-makers.<sup>16</sup> The definition of intelligence has both a practical and functional aspect. Practically, Kent's definition suggests intelligence as an ongoing process that an organization partakes in, and not only the finalized product that such a process would generate. Intelligence is therefore both the process and product of an intelligence process. By defining intelligence as a process, it becomes possible to question how this process takes place, what encompassing practices are involved in the process, and what the distinctive features of these encompassing practices are.

While intelligence is globally employed, and certainly not bound by any pre-determined methodological framework, there is a generally accepted, although broad, explanatory model of how information becomes procedurally processed into intelligence, through a process of different stages. This model, the intelligence Cycle, is an attempt to approximately describe and through what encompassing practices information becomes intelligence. In other words, it reveals how information, or in intelligence jargon, raw-data, is made 'applicable'.<sup>17</sup> As such, the Cycle is a methodological outlining, describing the different stages of the intelligence process. This model contains: Planning, Collection, Processing, Analysis and Dissemination, outlined here in the procedural order as suggested in the cycle. The concept itself is, however, somewhat of a paradox. In contemporary research, the model provides the most accepted representation of how intelligence takes place and through what junctures. But it is criticized for its inaccurate linear portrayal. Critical literature has instead described it as a good understanding of what intelligence composes, not what it looks like.<sup>18</sup> Yet, as Mark Pythian states, it is "*central to the study and understanding of intelligence in the post-Second World War era*".<sup>19</sup>

On a functional level, Kent's definition suggests the primary reason for the appliance of intelligence to be the need to, in lack of better words, outsmart an adversary or competitor. For, as Kent argues, this is the central purpose of intelligence. As knowledge is equated to power, and intelligence serves to speak truth to the latter.<sup>20</sup> Basically, thus, intelligence manufactures efficiency. An ability to allocate fewer resources, than otherwise would be possible. Précising – every action should, in principle, originate from in this purpose,

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<sup>16</sup> Kent, Sherman, 1949, *Strategic Intelligence for American World Policy*, Princeton, Princeton University Press, N.J., p, 151.

<sup>17</sup> This objective view of untouched, raw information is regular in intelligence, yet highly debated. For more on the subject, see for instance: Minna Räsänen & James M. Nyce, 2013, "The Raw is Cooked: Data in Intelligence Practice", *Science, Technology, & Human Values*, 38 (5) 655-677.

<sup>18</sup> Pythian, Mark "Introduction: Beyond the Intelligence Cycle" In Pythian, Mark (red.), 2013, p. 1.

<sup>19</sup> Ibid.

<sup>20</sup> Kent, Sherman, 1949, p, 5-6.

and aspire towards it as a goal. Nonetheless, Kent's definition makes intelligence difficult to separate from other types of information systems. In fact, contrary to what one would believe, Kent's definition, although half a decennium old, is not alone in this problem of ambiguity. Even in contemporary literature, what intelligence should be considered as, and what it shouldn't, is a seriously discussed subject. Much for the simple reason that the use of intelligence is very contextualized along what has to be outsmarted, through what means and by what methods. As David Khan, writer of several prominent articles on the subject, argues: "[N]one of the definitions [of intelligence] that I have seen work".<sup>21</sup>

Another contribution to this discussion is Stout and Warner, who, while not succeeding in finding a more concrete definition, argues that a good comparison lies in the practice of political decision-making, which rests on the same principles of modifying information into practical application.<sup>22</sup> Yet, politics is not intelligence. But intelligence may be politicized.<sup>23</sup> Instead, what research has been made on what intelligence is, has usually been implicitly located in organizational descriptions and diagnostic proportions, which rather has aimed to fix intelligence by targeting its faults, than philosophize about its nature.<sup>24</sup> This research is as such, unfortunately, confined within severe ideographic approaches of specific cases and occupies itself with principally recouping historical cases where intelligence failed to deliver vital information. As such, the result of these studies only points to the contextual uniqueness of intelligence, thus hindering any attempts of generalization.

In the end, however, for the purpose of this study, what distinguishes intelligence from other types of information systems is taken from Wilhelm Agrell, who suggests the distinctiveness of intelligence to be the relationship between practice, confidentiality, and decision-making.<sup>25</sup>

## 2.2 The use of Intelligence in Law Enforcement

How crime should be responded to has historically been a debated subject, stretching from economic to philosophical and sociological research. Traditionally, the practice of law-enforcement has been reactive. Police have responded to calls from the public to deal with those not abiding by the law; crime had to be committed before being stopped. However, with the new wave of globalization, the rise of the public Internet and new forms of international co-operation, the potential to broaden markets for those partaking in illegal activities gave rise to transnational crime as it is understood today. In this context, the request for an improved, more efficient, model of policing came into question.<sup>26</sup> By adding a proactive capacity to complement the reactive form of policing, the police were assumed to act faster and keep up with the rapidly evolving criminal environment. Furthermore, with a politicized desire on 'value-for-money' and key-

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<sup>21</sup> David Kahn, 2001, p, 79.

<sup>22</sup> Mark Stout & Michael Warner, 2018, p, 517-518.

<sup>23</sup> Michael Handel, 1987, "The Politics of Intelligence", *Intelligence and National Security*, 2:4, 5-46, p, 5-6.

<sup>24</sup> Eriksson, Gunilla, 2013, p, 4.

<sup>25</sup> Agrell, Wilhelm, 1998, p, 23.

<sup>26</sup> Ratcliffe, JH (in press) "Intelligence-led policing" in Wortley, R, Mazerolle, L, and Rombouts, S eds. *Environmental Criminology and Crime Analysis*, Willan Publishing: Cullompton, Devon, p, 3.

performance-indicators in institutions, also known as CompStat,<sup>27</sup> the culmination was an investigative, mostly civil-division, compiling of analysts calculating criminality. This was the new form of policing, now known as Intelligence-Led Policing that emerged mid-1990's in Great Britain, then under the title National Intelligence Model.<sup>28</sup>

Conceptually, the notion of combining Law Enforcement with the practice of intelligence is not new. Some even argue that the practice in an early version was introduced during the Cold War on the Eastern Front to control populations in occupied territories.<sup>29</sup> Yet, this version of police intelligence was far from as organized and systemized as IPL is understood as today. Since its conception, the ILP model has induced crime fighting with additional intelligence-based directives along with tools for managing resources through a to “do more with less” standard.<sup>30</sup> Resources have been able to be more efficiently relocated, with the police becoming more equipped to deal with upcoming criminality.

Just this, to the concern of some, implies ILP as entailing the help of some type of systematic categorization of potentialities, able to store and retrieve information about crime, criminals and possible offenders. In some parts, this is true. By introducing policing to the benefits of intelligence expertise, collecting information has become beneficial in providing a better understanding of where and why it occurs.<sup>31</sup>

As such, the approach is not without its criticism. Maguire, for instance, argues that ILP has not been as effective as postulated. Instead, he argues, the purpose of ILP has been no more than to hide increases in monitoring usage, CCTV, by using catchy phrases. In turn, it is veiling a significant change in the business of what policing entails, a change that marginalizes the relation to the population, in exchange for dependability on statistics.<sup>32</sup>

Yet, only looking at ILP as efficiency only serves to marginalize the overall effect of how comprehensive the effect of ILP has been on the reformulation of traditional police work. Ratcliffe argues, ILP should be viewed as a “*management philosophy that places greater emphasis on information sharing and collaborative, strategic solutions to policing problems at the local and regional level*”.<sup>33</sup> But what this implies in terms of concrete measures is unclear. Not surprisingly by adopting intelligence, which in itself is of contested designation, into policing, the definition of measures is disputed. Whereas some emphasize the increased ability to make threat-assessments, others see the ability to categorize, retrace and revisit additional information as the main

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<sup>27</sup> Ratcliffe, Jerry, 2016, p, 57.

<sup>28</sup> James, Adrian, 2013, *Examining intelligence-led policing: developments in research, policy and practice*, Palgrave Macmillan, Basingstoke, p, 1.

<sup>29</sup> Jenkins, Philip, 1988 “Policing the Cold War: The Emergence of New Police Structures in Europe 1946-1953.” *The Historical Journal*, vol. 31, no. 1, pp. 141–157, p, 142.

<sup>30</sup> Ratcliffe, Jerry, 2016, p, 6.

<sup>31</sup> United Nations Office on Drugs and Crime, 2011, “Criminal Intelligence Manual for Analysts”, United Nations, New York, p, 7.

<sup>32</sup> Maguire, Mike, 2000, “Policing by risks and targets: Some dimensions and implications of intelligence-led crime control”, *Policing and Society*, 9:4, 315-336, p, 315-317.

<sup>33</sup> Ratcliffe, Jerry, 2016, p, 4.

beneficiary.<sup>34</sup> What can be clearly stated is how policing has not become an intelligence. But intelligence has become a principal tool for policing.

The choice for this thesis is to consider ILP as having intellectually transformed the overall process of how policing is conducted and operationalized, especially in the department of how and when to apprehend criminals.

## 2.3 The Analysis of Intelligence

In intelligence, the analysis is different depending on what the purpose of employing intelligence is, and how the analytical products are being utilized. Thus, in what purpose the IA is done has implications on the analytical process. Sources, material and context obviously separate the policiary application of intelligence to the Military- or Business versions of intelligence.<sup>35</sup> Yet, to provide a basic understanding of what IA aims to do, there are according to Agrell some general features which guide the analysis of intelligence, regardless of where it is employed.

- To identify and assess external parties, their agency, thinking and intentions.
- To interpret ongoing events and intercept warnings of threats.
- To understand the cause and effect of agency.<sup>36</sup>

As such, intelligence analysis is something relatively simple, as long as it is about conditions that are possible to verify; where there are clear answers to why causes exist, and where the implications of dealing with these causes equate to comprehensible consequences.

This is, however, seldom the case. Plans and intentions that do appear easy to understand may, in fact, prove complex and multifaceted, resulting in a much higher degree of ambiguity. As such, IA can both be easy and difficult; information can be correct or deceiving, activity can be true or misleading, careful interpretation is vital. So, while great effort has been made to map and categorize, for instance, a criminal network, even knowledge of concrete planning and preparation isn't a sure source of future events, as plans can be altered by chance circumstances. Yet, the need for accuracy in predictions is necessary for providing confidence in decisions made on the basis of analysis. In short, whereas the potentialities of circumstances may be limitless, the need for confidence in intelligence is dictating the fundamental aim of IA. Like Steven Ribbers contends, "*Being both assertive and well-calibrated is essential to Intelligence Analysis*".<sup>37</sup>

One of the first people to talk about IA as a distinct notion was Sherman Kent. Kent, baptized the father of intelligence analysis, proposed in the 1950's that IA should conceptualize its search for and engagement

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<sup>34</sup> OSCE *Guidebook Intelligence Led Policing*, p, 12. James, Adrian, 2013, p, 88.

<sup>35</sup> William E. Odom, 2008, "Intelligence Analysis", *Intelligence and National Security*, 23:3, 316-332, p, 320.

<sup>36</sup> Agrell, Wilhelm, 2009, *Underrättelseanalysens metoder och problem: medan klockan tickar-*, 1. uppl., Gleerup, Malmö, p, 37.

<sup>37</sup> Rieber, Steven, 2004, "Intelligence Analysis and Judgmental Calibration", *International Journal of Intelligence and Counter-Intelligence*, 17:1, 97-112, p, 101.

in knowledge through three distinct approaches of what is possible to understand. Detailing, Kent outlined these as ‘knowns’, or types of knowledge that were of interest to the analyst. There is the ‘knowable and known’: the generally accepted facts of common understanding by which society unreservedly agreed upon; the ‘knowable and unknown’: pointing to information that was obtainable through different methods, but was generally hidden or held secret from those without access, and lastly, the ‘unknowable’: types of mysteries that perplexes even the most experienced and could be determined only through assumptions.<sup>38</sup> How these were to be understood and predicted, Kent argued for a logical positivistic approach of reasoning. Doing so, IA could only be considered as when reliable informing decision-makers if it was conducted through logical and rational evaluations. Thus, eliminating any interference from personal preferences. Although Kent understood that subjectivity was inevitable, it was negatable by the right method and objectivity as a guiding principle. In turn, decisions could be justified on the basis of pure facts, and absent of personal biases which in turn could imply irrationality.<sup>39</sup>

In “Handbook of Intelligence Studies” Michael Andregg, continues this idea. Because, he argues, the implications of decisions taken as a result of the analytic work can have vast consequences, those on the receiving end of the analytic product must have confidence in the ‘factualness’ of predictions. Yet, unlike Kent, Andregg acknowledges the inconceivableness of truly separating oneself from the opinions and presumptions that subjugates the intellect.<sup>40</sup> And he isn’t alone in this. With the upsurge of critical-approaches to Social Science, separating the subjective individual from the objective prefix has been central.<sup>41</sup> This has questioned the objective presumption of IA by research into the epistemic aspects of the subject.

## 2.4 Thinking in Intelligence Analysis

The individual cognition that shapes how IA is done is an intriguing subject. Indeed, because IA operates in an institutional setting where information and directives consciously change, while routinely outlining relevant actors and alternative hypotheses, IA has been called “*the most sophisticated and intellectually demanding activity in the intelligence community*”.<sup>42</sup> Usually, studies that seek to address potential problems within IA emphasizes correlation and causality between the different stages of collection, analysis and dissimulation,

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<sup>38</sup> <https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/sherman-kent-and-the-board-of-national-estimates-collected-essays/4estimates.html>

<sup>39</sup> Kent, Sherman, A Crucial Estimate Relived.

[Accessible: <https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/sherman-kent-and-the-board-of-national-estimates-collected-essays/9crucial.html>]

<sup>40</sup> Andregg, Michael, “Intelligence Ethics: Laying a Foundation for the Second oldest profession” in Johnson, Loch K. (red, 2007, p, 56-57.

<sup>41</sup> Ward, Hugh, “Rational Choice” In Marsh, David & Stoker, Gerry (red.), 2002, *Theory and methods in political science*, 2. ed., Palgrave Macmillan, Basingstoke, p, 71-76.

<sup>42</sup> Hollister Hedley, John, “Analysis for Strategic Intelligence” in Johnson, Loch K., 2009, p, 211-212.

yet seldom recognizes the cognitive limits inherent in subjectivity and individuality.<sup>43</sup> As such, the cognitive aspect of IA is often reduced into “*an unrecognized and unarticulated practice*”.<sup>44</sup>

However, when cognitive aspects are taken into account – for instance in the literature on the failure of IA to predict events – their implications on the analysis are described as detrimental to the analytical product.<sup>45</sup> Of the assorted issues that problematize IA, those related to the cognitive settings are therefore among the most important to remedy if one is to improve the quality of analysis.<sup>46</sup> True, in discussions on the issues of IA, matters that deal with the individual cognitive preferences of analysts are usually disregarded in exchange for psychological approaches of broader proportion. On one hand, this allows for fixes to be more holistically implemented. On the other, it marginalizes attention to detail and thus further understanding of the subject.

In the transformation of information to intelligence, the most obvious constraint for analysts is the limit of humans to store and use information.<sup>47</sup> Historically, ‘gut feeling’, or intuition, has occupied a convoluted position in IA. Taking risks on abstaining from the perceived rational prediction is mainly linked to degrees of trust in the individual analyst and how previous assessments have fared. Undeniably, perception is commonly seen as a subliminal entity of the human mind. Noticeable only when responding to stimulus through the impact between the cognitive framework and various consumptions of inputs. However, by viewing perception as an active phenomenon, something that is constantly reacting to reality, and more importantly, interpreted and reproduced on the basis of previous experiences, education, cultural identity and social norms, perception becomes a viable factor to consider and evaluate.<sup>48</sup> This outlines a fundamental challenge to the improvement of IA. The analyst in IA are human, and whether method they adopt in the workplace, suggesting that they act through objective impartial reasoning provides an inadequate understanding of the process of analysis.<sup>49</sup> Acknowledging this role of individualism in IA thus reassesses potentialities of variation, and discloses further variables of relevance when evaluating the process.

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<sup>43</sup> Kjetil Anders Hatlebrette & M. L.R. Smith, 2010, “Towards a New Theory of Intelligence Failure? The Impact of Cognitive Closure and Discourse Failure”, *Intelligence and National Security*, 25:2, 147-182, p, 147.

<sup>44</sup> Eriksson, Gunilla, 2013, p, 68.

<sup>45</sup> See for instance: Bar-Joseph, Uri, 2005, *The Watchman Fell Asleep: the Surprise of Yom Kippur and its Sources*, State University of New York Press, Albany. Jervis, Robert, 2010, *Why intelligence fails: lessons from the Iranian Revolution and the Iraq War*, Cornell University Press, Ithaca, N.Y.

<sup>46</sup> Heuer, Jr. Richards J, 2004, “Limits of Intelligence Analysis”, *Elsevier Limited* on behalf of Foreign Policy Research Institute, 75-94, p, 78.

<sup>47</sup> Heuer, Richards J. & Pherson, Randolph H., 2011, *Structured analytic techniques for intelligence analysis*, CQ Press, Washington, DC, p, 41.

<sup>48</sup> Heuer, Richards J., 2010, p, 7.

<sup>49</sup> Andregg, Michael, “Intelligence Ethics: Laying a Foundation for the Second oldest profession” in Loch K. Johnson, 2009, p, 56-57.

## 2.5 Assessing Intelligence

Assessments are not by any means unique to IA. The simple interpretation of information may be classified as an assessment. What distinguishes intelligence assessments is, like the analysis, linked to the purpose of employing intelligence in the first place.<sup>50</sup> Due to how intelligence deals primarily with competition, this is also what the assessment is about.

Cynthia Grabo describes indications, or potentiality of action, as to why something is acknowledged.<sup>51</sup> Indications are also, according to Grabo, something that is anticipated to may transpire and therefore is added into a list of things to be aware of.<sup>52</sup> These lists are then compiled into physical or cognitive evidence compartments, through which agency is predicted through hypothetical testing. What an indicator is can, therefore, be almost anything associated with human agency. Yet, what it comes to represent creates a demand to provide assessments of its condition in the current and in the future.

The ambiguity of indications, in relation to scope and time is, however, an inherent obstacle to IA, and analyzes calls for constant updating to be considered reliable. For, in reality, only a tiny fraction of potential threats actually manifest into actual events. Separating between that something will or will not is difficult and this is where the interpretive aspect of IA resides.

How threats are identified in ILP is, as argued by Ratcliffe, divided into three types of intelligence. These are differentiated by how they adhere to the variable of conceptual scope. Ratcliffe defines these types as Strategic Intelligence (SI), Tactical Intelligence (TI), and Operational Intelligence (OI).<sup>53</sup> SI is the type that deals with a comprehensively large scope. It focuses on the bigger picture, such as underlying community problems, and mainly serve to benefit the allocation of resources and overall police strategy.<sup>54</sup> TI deals with the tactical support of operations and is chiefly tasked with the investigation into ongoing processes. It is confined to the immediate action and directly contributes to the attainment of specific cases.<sup>55</sup> OI is located in the middle of the former two, mainly concerned with the identification of targets and interventions in criminal activity.<sup>56</sup>

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<sup>50</sup> Mark Stout & Michael Warner, 2018, p, 516-517.

<sup>51</sup> Grabo, Cynthia M., 2004, *Anticipating surprise: analysis for strategic warning*, University Press of America, Lanham, MD, p, 3.

<sup>52</sup> Ibid.

<sup>53</sup> Ratcliffe, Jerry, 2016, p, 74-75.

<sup>54</sup> Ibid. 75.

<sup>55</sup> Ibid. 74 .

<sup>56</sup> McDowell, Don. 1998. *Strategic Intelligence: A Handbook for Practitioners, Managers, and Users*. Cooma, Australia: Istana Enterprises Pty. Ltd, p, 12-13.



## 3. Theoretical Framework

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### 3.1 Cognition, Heuristics and Biases

To research cognition of individuals that are employed within an organization, two theories, one, dealing with individual cognition: The Dual-Process Theory (DPT); and a second, that assumes cognition through organizational preferences: Logic of Appropriateness (LoA), has been selected as appropriate.

The selected theories represent new approaches to the research of cognition.<sup>57</sup> This is a conscious choice. Deliberations were initially made regarding the reliability of new theories, supported by research that is in its developmental stage. However, due to the thesis seeking to explore cognition as something more than uniformity of more or less rational calculations – as traditionally done in cognitive research – the utilization of theories that attempts to expand and question the traditional assumptions of rationality appeared more fruitful to accurately understand how cognition takes place.

This is not to question the idea that cognition as rational is wrong. This must be emphasized. On the contrary, looking at human behavior, much of our actions stem from evaluating costs and benefits of agency. It is regularly observable. But, relying on this sole presumption has appeared to present reliability issues and has served to somewhat confine results along with presumptions of rational determinism.

Recent research on cognitive psychology has attempted to fill this gap by exploring the impact of heuristics and perceptual biases. This debate seeks to highlight the cognitive constraints of human beings. Most prominently, Daniel Kahneman received the Nobel prize in economics on his theory of cognition as differentiated in effort. Kahneman argues that gains and losses in a deterministic fashion acts as the sole guide of agency can easily, by looking at a real-life situation, be dismissed as inaccurate. Instead, there are two kinds of thinking, impulsive and deliberate.<sup>58</sup> Likewise, in contemporary research on institutions, a perspective to human agency within institutions as adhering to normative, rather than rational, agency – a Logic of Appropriateness – has been developed to explain the abidance of rules, regulations and roles as incentives to decision-making, even in cases where these choices are not optimal.

In the following segment, these will be further explained in detail.

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<sup>57</sup> James G. March & Johan P. Olsen's article 'The Logic of Appropriateness' coined the term *Logic of Appropriateness*. The article was published in Oxford Handbook (2008).

*The Dual-Process Theory* has grown from a disperse field of psychology and cognitive research, with a rich flora of researchers proposing it before it was formally outlined as used in this essay by Daniel Kahneman in his book 'Thinking Fast and Slow', released in 2011.

<sup>58</sup> Evans, Jonathan, 2011, "Dual-process theories of reasoning: Contemporary issues and developmental applications", *Developmental Review*, Volume 31, Issues 2–3, September, Pages 86-102, p, 86.

## 3.2 Dual Cognitive Process Theory

The *Dual-Process Theory* or *The Dual Cognitive Process Theory* assume cognition as being performed by two different facilitators. While these facilitators go under many different names – System 1 and System 2, Fast and Slow, or Type 1 and Type 2 – the theory in itself perceives these cognitive facilitators to cause humans to act differently depending on associations.<sup>59</sup> That the mind is divided is not a new concept. Perhaps the earliest proposal is from Plato, who proclaimed the essence of humans, the soul, was split into three parts: *reason*, *appetite* and *spirit*.<sup>60</sup> But, where Plato perceived the soul as central to cognition, the human brain today occupies that position. In academic research, the theory has gained attention within several fields that take interest in cognition.<sup>61</sup> Economics, advertising and sociology to name a few. However, how they work together is not fully understood. While the new approach to cognition has invited a compendium of suggestions, none has been determined definitely.

The scholarly contributions to DPT are *In Two Minds: Dual Processes and Beyond* by Jonathan Evans and Keith Frankish and *Thinking Fast and Slow* by Daniel Kahneman. While Stanovich's *Rationality and the Reflective Mind* undoubtedly deserves a mention as well, the book mainly focuses on disputing the principles of rationality by using DPT, rather than examining it *per se*.

Evans and Frankish explain the DPT as a systemic process to reduce and simplify information through reflections and associations.<sup>62</sup> They argue these cognitive 'systems' are divided into two qualitatively distinct sets. One that is tasked with fast, intuitive and highly contextualized thinking, System 1, and the other, which deals with deliberate, controlled and reflective thinking, System 2.<sup>63</sup> Further, System 2 is divided along two sub-categories: a reflective vis-à-vis an algorithmic facilitator.<sup>64</sup> Due to how the mind has to evaluate its deliberations, the algorithmic mind is therefore assumed to evaluate the reflective impressions.

Daniel Kahneman, in his book 'Thinking Fast and Slow', also subscribed to this assumption of cognition. However, different to Evans and Frankish, Kahneman asserted the reflective and algorithmic mind to harmonize in System 2, thus assuming System 2 as a product of its components, instead of the components being a product of System 2.<sup>65</sup> This thesis will adhere to Kahneman's approach towards the two systems due to how it encompasses, rather than divide, System 2 cognition. This may result in conceptual implications for the study in the future. But affirming to theoretical development is difficult, as the case of rationality has revealed. Because how System 1 deals instinctively fast with non-reflective cognition, the connection between System 1 and the deliberate System 2 comes to influence the conditions by which

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<sup>59</sup> Frankish, Keith, "Systems and levels: Dual-system theories and the personal—subpersonal distinction." In Evans, Jonathan & Frankish, Keith (Ed.), 2009, *In two minds: Dual Processes and Beyond*, Oxford University Press, p, 97-98.

<sup>60</sup> Frankish, Keith & Evans, Jonathan, "The Duality of Mind: A Historical Perspective" In Evans, Jonathan & Frankish, Keith, 2009, p, 2.

<sup>61</sup> Stanovich, Keith E., 2011, *Rationality and the reflective mind*, Oxford University Press, New York, p, 16.

<sup>62</sup> Frankish, Keith & Evans, Jonathan, "The Duality of Mind: A Historical Perspective" In Evans, Jonathan & Frankish, Keith, 2009, p, 11-12.

<sup>63</sup> Kahneman, Daniel, 2011, *Thinking, Fast and Slow*, 1.ed., Farrar, Straus and Giroux, New York, p, 20-22

<sup>64</sup> Keith E. Stanovich, "Distinguishing the reflective, algorithmic, and autonomous minds: Is it time for a tri-process theory?" in Evans, Jonathan & Frankish, Keith, 2009, p, 58-59.

<sup>65</sup> Kahneman, 2011, p, 28-29.

information is perceived. This has big implications for understanding cognition, whereas how these two systems complement and compete against each other is believed central to the formation of any perceptual bias, whereas the intuitive system automatically comes to influence any further reasoning.<sup>66,67</sup>

This picture illustrates the dynamic between the two types of thinking. At first look, your mind provides you with the complex forms at display. System 1 intuitively signals that the both towers are equally tall, and that they are similar, in comparison to the pile of blocks in between them. However, the actual number of blocks in the left tower is not clear. While comparisons quickly are made between the number of blocks in the pile and those in the left tower, it is not clear that stacking them would result in an equally high tower. To determine this, it is necessary to count the blocks in the center and compare that number to the left tower, an activity of System 2.

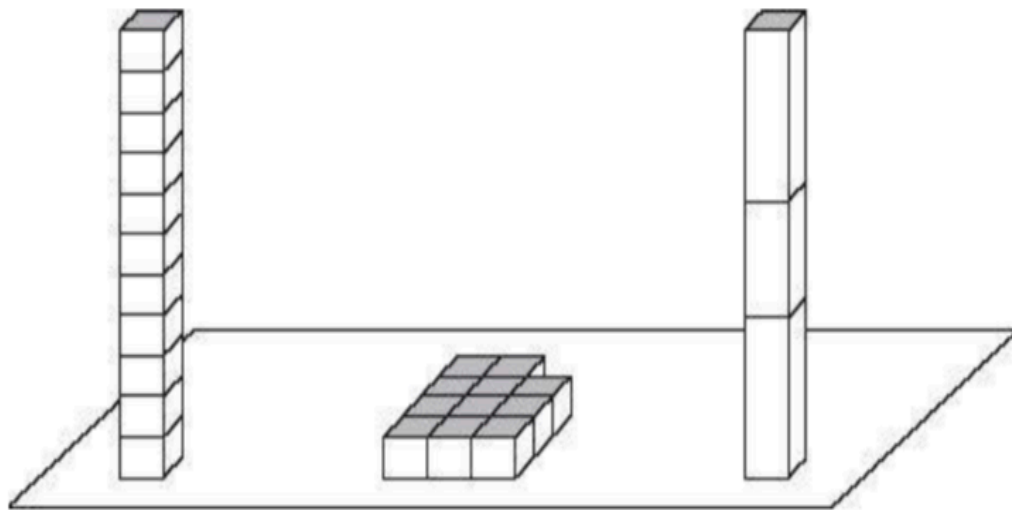


Fig.1

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<sup>66</sup> Evans, Jonathan, 2006, "The heuristic-analytic theory of reasoning: Extension and evaluation" *Psychonomic Bulletin & Review*, University of Plymouth, Plymouth, England, 13 (3), 378-395, p. 378.

<sup>67</sup> See: Figure 1.

### 3.2.1 System 1 Processing

System 1 is distinguished by how it operates automatically, systematically and instantly. It provides initial impressions to situations. These impressions are not genetic in nature, but the product of how past experiences have been experienced and how the constituent elements of those experiences have given rise to associative ideas.<sup>68</sup> When thus a situation or some elements of it are recognized, the brain impulsively initiates the heuristic preferences and acts in what is the best-perceived agency. For instance, a lion does not scare because it is a lion. It scares because it is big, has large teeth and roars loudly. Perhaps you've seen a lion hunt and is aware of your subordination to it in the wild. Thus, the lion doesn't scare because it is a lion, it scares because what a lion is associated with. To best understand System 1 cognitive processing, it is hence profitable to understand it as the primary filter between the outside world and what is perceived as appropriate responses. It acts as the active perceptive filter through which external stimulus is received, categorized and compartmentalized.<sup>69</sup> However, the system does not have any particular organized way of structuring information, and does, therefore, in some cases, struggle with miscalculations when dealing with ambiguous information.

Assumed to be a residue of human evolution, System 1 has evolved to help assess situational impressions in cohesion with chances of survival. In so, it seeks to determine situations as either good or bad.<sup>70</sup> While, as Kahneman argues, these basic assessments are relatively outdated and impractical in modern society, System 1 nonetheless remains as a link to a more challenging past, and in a philosophical sense, encompasses the fundamental building block for individualism through different experiences.

When applied to other types of research on how cognition influences agency, System 1 has had great implications in explaining why a decision was made. While commonly, missteps, irregularities and investing in the obviously wrong case, has been explained by proposing the absence of 'right' information, acknowledging the presumptions of System 1 allows a more contextual and nuanced picture of who did what and why. System 1, therefore, has two implications on the human relation to information. 1) As an active 'filter' which is continuously constructed and reinforced by the input of information in relation to individual sentiments towards that information, and 2) being a tool of intuitive cognition. Together, these form the constantly perceptive framework which works to create a situational familiarity and awareness.

Mapping System 1 is difficult. Not only is it extremely individualist – where chess players can make a highly complex move in the blink of an eye, while the same process would take a non-chess player several minutes – it is also still in an exploration phase. However, in 'Thinking Fast and Slow', Kahneman has outlined six, distinct, heuristic biases that stem from a need to understand and organize impressions on a short basis.

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<sup>68</sup> Kahneman, Daniel, 2011, p, 22.

<sup>69</sup> Kahneman, Daniel, "A Perspective on Judgment and Choice, Mapping Bounded Rationality", *American Psychologist*, September 2003, Vol. 58, No. 9, 697–720, p, 698.

<sup>70</sup> Kahneman, Daniel, 2011, p, 89-90.

- *Anchoring Effect*: Humans always determines, or at least contemplates, a starting point to evaluate information, which is then adjusted to provide the right answer.<sup>71</sup>
- *Availability*: Making judgements, estimates have a tendency to be influenced by the effortlessness to retrieve similar instances of associations. Consequently, if asked for frequency, it is probable that specific instances come to mind.<sup>72</sup>
- *Attribute Substitution*: Facing a prediction where a satisfactory answer is not found quickly, humans tend to unconsciously replace the initial question with an easier one and answer it, thus providing a perceived suitable answer.<sup>73</sup>
- *What You See Is All There Is (WYSIATI)*: Humans have a tendency to jump to conclusions and attempt to answer complex questions without questioning those conclusions.<sup>74</sup>
- *Framing*: Depending on how information is presented, humans are inclined to answer differently. For instance, if asked if one would own a gun, thus reducing the chance to get killed by 90%, most would agree. Yet, if asked if one would own a gun, thus increasing the change of self-inflicted fire by 100%, most would abstain.<sup>75</sup>
- *'Sunk-Cost'*: Humans are inclined to invest further resources in ventures that have a low chance of succeeding if those ventures initially proved successful.<sup>76</sup>

### 3.2.2 System 2 processing

In comparison to System 1, System 2 – with its aptitude of evaluating information, has for a long time been associated with research on human cognition. By being able to evaluate information, System 2 has helped to verify the perception of cognition as inherently driven by optimization. As such, it alone has provided a standardized explanation of human cognition, which has aided in paving the way for attempts to understand the principle workings of human behavior. System 2 is defined by how it houses the deliberate, rational and conscious properties of cognition, and either generates questions by enquiring its own assessments or receive them through System 1.<sup>77</sup>

The influence of System 1 on System 2 is, regarded higher than by System 2 on System 1. As such, any evaluation in System 2 will conform to System 1's assumptions, often without recognizing why.<sup>78</sup> So when System 2 activates to evaluate something, it is assisted by System 1 and the memory-bank of associations.<sup>79</sup>

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<sup>71</sup> Kahneman, Daniel, 2011, p, 120-121.

<sup>72</sup> Ibid. p, 130-131.

<sup>73</sup> Ibid. p. 97.

<sup>74</sup> Ibid. 85-87.

<sup>75</sup> Ibid. p, 88.

<sup>76</sup> Ibid. p, 253.

<sup>77</sup> Ibid. p, 89.

<sup>78</sup> Alan R. Dennis, Randall K. Minas, "Security on Autopilot: Why Current Security Theories Hijack our Thinking and Lead Us Astray", *The DATA BASE for Advances in Information Systems*, 15 Volume 49, Special Issue, April 2018, p.16.

<sup>79</sup> Kahneman, Daniel, 2011, p, 89.

In a search for a better analogy, System 2 acts as the critical-culmination of the cognitive process, where all conceivable associated variables and assessments are assembled and evaluated against each other.

Because System 2 is only activated as an extension of System 1, in regularity, it functions on a low-effort setting and is passive when not perceived necessary. Instead, System 2 is activated by motivation and willingness to question assessments of System 1.<sup>80</sup> As such, when choosing to appeal to System 2 cognition the undertaking requires *effort*. What exactly motivates effort is still debated. Kahneman, for instance, assumes motivation and willingness as stemming from the fact that humans are inherently loss averse.<sup>81</sup> It would suggest making mistakes and being incorrect makes us put effort into altering what made us do mistakes or be incorrect.

System 2 does not only function as a servant to System 1 but also possesses the capability to override System 1 responses.<sup>82</sup> Intuitions can be questioned and re-evaluated, yet this requires a high amount of motivation. In sum, System 2 is a tool of critical evaluation or affirmative recognition depending on the values embedded in System 1. When facing a problem then, what information travels past System 1 depends on the ability to see this information as viable.

Figure 2 represents the encompassing information of the DPT.

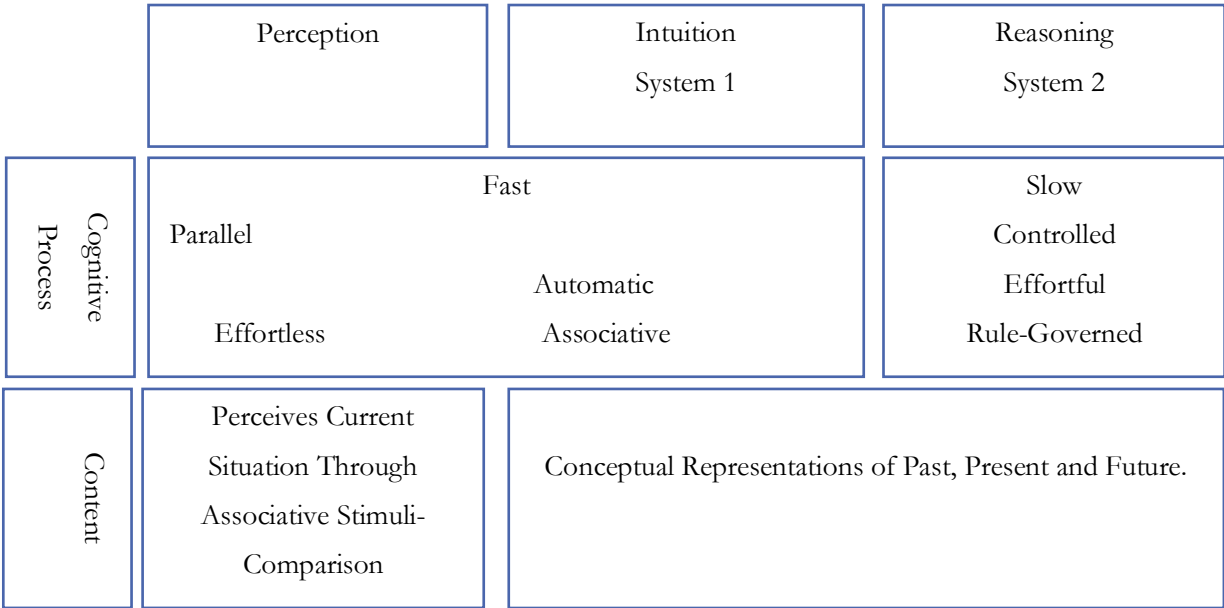


Fig. 2

<sup>80</sup>Evans, Jonathan, 2011, 2011, p, 92 – 93.

<sup>81</sup> Kahneman, Daniel, 2011, p, 21-22.

<sup>82</sup> Ibid. p, 36.

### 3.3 The Logic of Appropriateness

In the development of studies on institutions, behavioral institutionalist has attempted to redefine the previous conception of institutions as only structures of formal abidance into corresponding vessels of social interaction.<sup>83</sup> This has resulted in a new way to conceptualize institutions as arrangements of behavioural norms. Most prominently, March and Olsen have established these ideas into the theory of Logic of Appropriateness.

The LoA assumes that institutional norms formulate the appropriate behaviour of those partaking in the institution, and by an informal agreement, the institutional norms administer how things usually are done. They influence how individuals act, through what means and by what methods. In short, norms are the socially agreed proper behaviour that is imposed on those included in the institution. How these norms conform to the individual is presumed uniform, but depending on how the individual conveys the norms, it is more or less motivating to abide by them. Norms can therefore either go against the individuals own standards, which imposes restrictions on conduct or positively correlate to those standards, to provide opportunity.<sup>84</sup> As such, it is important to notice the theory does not suggest institutions to only limit cognition but also potentially enable it.<sup>85</sup>

Moreover, because of the multilayered relationships between organizations, groups and the individual, the theory states that individual agency in institutions is not rational but illogical, due to how the actors “*have forgotten, or never been told, the reasons why the rules of the game are as they are*”.<sup>86</sup>

March and Ohlsen designate three main variables that establish the core of how the LoA manifests in institutions.<sup>87</sup>

- The *roles* that people take in the workplace.
- The *routines* of how things usually are done.
- The perceived *rules* of how something is appropriately done.<sup>88</sup>

In the case of intelligence, the most famous case of organizational preferences to act illogically is the Israeli inability to foresee the Yom Kippur war. Because Israeli intelligence as an organization subscribed to the notion of war as inconceivable, any voices within the organization stressing the mobilization of enemy troops was overlooked or ignored.<sup>89</sup> Seeing how these presumptions of the preferred agency directly relate

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<sup>83</sup> Williams, Raymond, 1985, *Keywords: a Vocabulary of Culture and Society*, Rev. ed., Oxford University Press, New York, p. 169.

<sup>84</sup> Lowndes, Vivien “Institutionalism” in Marsh, David & Stoker, Gerry (red.), 2002, p, 94-96

<sup>85</sup> Peters, B. Guy, 2012, *Institutional theory in political science: the new institutionalism*, 3., [rev.] ed., Continuum, London, p, 30-31.

<sup>86</sup> Lowndes, Vivien & Roberts, Mark, 2013, *Why institutions matter: the new institutionalism in political science*, Palgrave Macmillan, Basingstoke, Hampshire, p, 30.

<sup>87</sup> Ibid.

<sup>88</sup> Ibid.

<sup>89</sup> Bar-Joseph, Uri, 2005, p, 247.

to the impulsive conception of how information is perceived, it also, subsequently, links to what agency is performed. While it is somewhat dangerous to assert that analysts consume and reproduce social or organizational preferences without any critical thinking, accounting for the influence of norms is important when analyzing analysts as members of a department.

### 3.4 Combining the Theoretical Frameworks

As representations of cognition, each of the outlined theoretical presumptions – System 1, System 2 and Logic of Appropriateness – plays a distinct role in defining how cognition is assumed to function. Yet, as complimentary cognitive systems, it is necessary to understand their relationship, if any further assumptions on cognition are to be outlined, discussed and problematized.

The relationship builds on two assumptions:

- 1) System 1 and System 2 cognition are inherently, qualitatively, different. They are active simultaneously yet rank different in terms of how much effort has to be invested. The relationship is in turn understood as vertical in process and effectively puts System 2 procedurally after system 1. Thus, although System 2 presumes itself to be the real thinker of the two, it would not be able to function without the framework existing in System 1.
- 2) System 1 cognition is dependent associations of good and bad to function properly. Thus, what rules, principles and codes-of-context, are established in the social context surrounding where the analysis takes place should ultimately have an impact on the analyst.

*A model of this theoretical framework has been developed and is outlined on the next page.<sup>90</sup>*

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<sup>90</sup> Fig. 3.



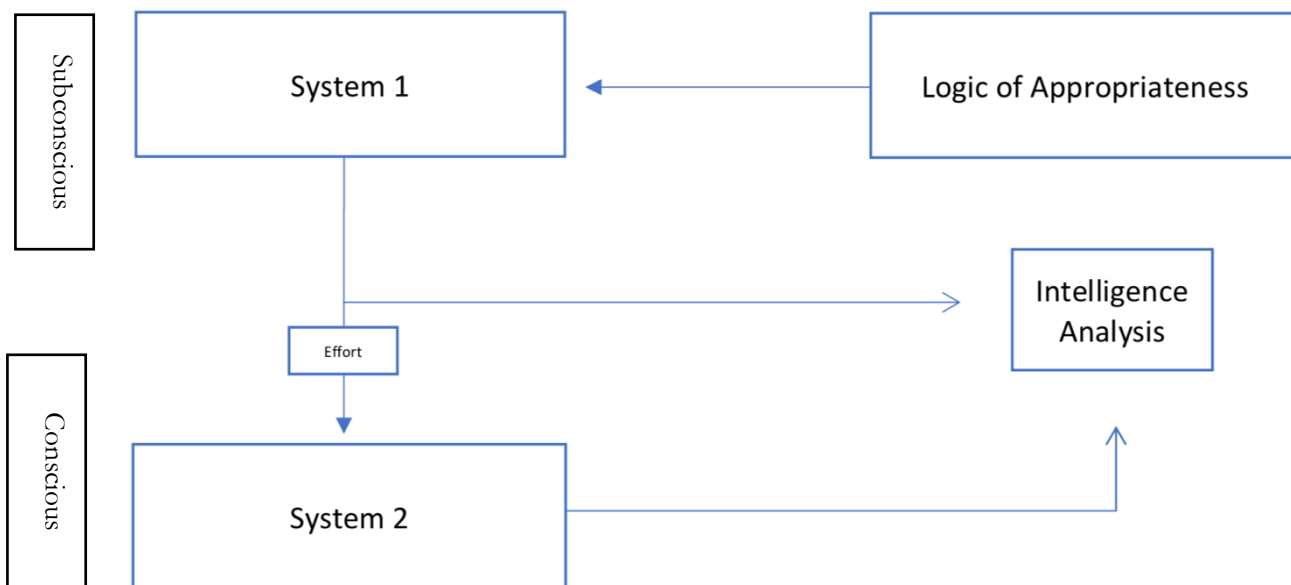


Fig. 3

## 4. Methodological framework

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The methodological approach of this thesis is a case study conducted on Polisregion Syd's Intelligence Department. This department is representative of the general operational institution of Police Intelligence, in terms of jurisdiction, but may have a slight variation in what methods that are used by analysts. Of course, no institution is completely alike – every intelligence department in Sweden are unique in some fashion, vis-à-vis gender composition, previous experiences of employees and social dynamic. But, like Sweden's other policiary Regions Intelligence Departments, it abides by the same overall National Strategy.<sup>91</sup>

In order to investigate the cognition of individuals employed in the department, as no previous information exists, the thesis will only rely on first-hand information. This information will be collected through individual semi-structured interviews. The interviews will be situated on the analyst's perception of their own cognition. Doing so will format the thesis as abductive, where subjectivity in the analysis is a premise, and thus can be further explored using the right method and theory. In turn, it will be necessary to design questions that can provide answers which are applicable to the theoretical framework. How these questions will be designed is described below in section 4.5.

Before continuing, it is of importance for clarification – regarding methodological evaluations and overall realization – to inform that the reason why the collection of information takes place within Polisregion Syd's Intelligence Department is because of personal connections has allowed the study to take place, whereas otherwise, it wouldn't have. This has assisted in approving and arranging meetings, otherwise not made possible due to confidentiality or trust in the public side of academics. Of course, studies within Intelligence Departments in Sweden do, infrequently, take place. However, the relation between the researcher and researched plays a significant role in setting these up. What methodological repercussions result from the inability to vary different methods are therefore somewhat unmanageable.

### 4.1 A Qualitative Case-Study

Research on intelligence is almost always case-related. Because of confidentiality, statistical numbers are hard to access without proper authorization and most records are kept from the public, with those released being the foundation upon which most research takes place. The methodological selection of this paper does not, therefore, offer anything new in terms of the methodological approach. What is of interest, instead, is the result. Research on individual cognition within an organization that deals with ILP are rare. In turn, it can offer further insight into how ILP functions, and provide additional information upon which research can be made.

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<sup>91</sup> Svenska Polislagen (1984:387)

Defined by George & Bennet the use of case studies, by a case, limited scope and time helps provide a better understanding of ‘an instance of a class of events’.<sup>92</sup> The methodical approach, with its inherent limitations, thus legitimizes the apprehension of information by arguing an ‘in-depth’ style also contributes to understanding bigger phenomena’s by looking at its constituent qualities. Additionally, utilizing a case study awards some maneuverability regarding what information is searched for, as such increasing the ability to identify and measure the indicators represented in the theoretical framework.<sup>93</sup>

On the other hand, isolating the study to a certain intelligence department does limit the number of sources that are available. In this instance, the number of sources was low, with only 7 interviews. This results in the incapability of the thesis to really assume or propose any real general casual mechanisms between the occurrence of subjectivity in ILP and how it affects the analysis. This does not rule out the potential of locating findings as bi-products of the analysis.

However, this ideographic restriction is not unique to case studies, but, arguably, qualitative research as a whole. As Fiona Devine, in *Theory and Methods of Political Science* argues “[...] qualitative researcher neither subscribe to the view that research can be objective, nor do they seek objectivity in field relations”.<sup>94</sup> As such, the aim of this thesis is not to argue any representation of cognition in IPL as a whole. Rather, the methodological approach helps to illuminate a certain issue or phenomena within IPL, which can be used in further studies.

## 4.2 Semi-Structured Conversational Interviews.

Each organization and every employee have common characteristics but also exhibits features that are unique. In themselves, they often represent crucial knowledge for an organization's successes and failures.<sup>95</sup> A good way to unearth this knowledge is by utilizing interviews. As a way to generate information, the use of interviews alone can provide access to information that, depending on how individually tailored the questions are, reflects varying degrees of consciousness and presumptions of the interviewee. Thus, in the most structured form of interviewing, unique and nuanced answers can be difficult to find, while on the contrary, non-structured interviews are almost always unique. Here, it is important to notice that interviews are not only revealing information about social conditions and peoples experiences but equally, illustrates representations of perceived reality.<sup>96</sup> Indeed, by exchanging the one-way exchange of information between the researcher and literature, to a reflexive dynamic between two interacting persons, the research can also gain additional information about how to understand what the information actually represents. In so, as also argued by Irving Seidman that “*the primary way a researcher can investigate an [...] organization is through the experience of the individual people [...] who makes up the organization or carries out the process.*”<sup>97</sup> Yet evidence or attempts at

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<sup>92</sup> George, Alexander L. & Bennett, Andrew, 2005, *Case Studies and Theory Development in the Social Sciences*, MIT, Cambridge, Mass., p, 17, 19.

<sup>93</sup> Ibid. 19

<sup>94</sup> Devine, Fiona, “Qualitative Methods” in Marsh, David & Stoker, Gerry (red.), 2002, p, 206.

<sup>95</sup> Bell, Judith, 2006, *Introduktion till forskningsmetodik*, 4., [uppdaterade] uppl., Studentlitteratur, Lund, p. 20-21.

<sup>96</sup> Alvesson, Mats, 2011, *Interpreting Interviews*, London, SAGE Publications, p, 1.

<sup>97</sup> Seidman, Irving, 2013, *Interviewing as qualitative research: a guide for researchers in education and the social sciences*, 4. ed., Teachers College Press, New York, p, 9.

correlation gathered from interviews is hard to, on its own, justify causation. Questions only cover as much as they are designed to, and consequently, information that would be necessary for further understanding may never be actualized. To assist the study in highlighting the individual aspects of IA in Polisregion Syd's Intelligence Department, the interviews will be semi-structured, conducted on a face-to-face basis.

Semi-structured interviews are a more conversational form of interviews, yet still upholds some type of structure about how to research the subject. In comparison to a structured interview, the semi-structured interview begins by asking general and open-ended questions on the research subject. These serve as the framework for the interview. When asking these questions, it is up to the interviewer to probe for further information.<sup>98</sup> As such, a question of: *If something is a certain way* may be followed up by: *why the informant believes it is so?* This demands insight into what is being researched, and what possible subjects that are being mentioned by answering the initial questions. Any information sampled in the interview, therefore, depends on the ability to tailor the interview to the person of interest for the study.<sup>99</sup> In relation to methodological usefulness, with the low number of informants in the study, the semi-structured interview actively assists to add more information per interview, since it helps 'make the most out of little'. Indeed, by probing for more detailed information about the answers provided by the informant, concepts and assumptions can be thoroughly investigated and subsequently, understood.

An initial pilot-interview was held with one of the employees of the department to reassure what info that could be accessed. This interview also assisted in building a practical understanding of ILP. This would otherwise have been a main challenge. Due to the confidentiality of intelligence and lack of practical studies, follow-up questions would have been primarily speculative and would have prevented the dynamic of conversation in the first interview.

### 4.3 Selecting Participants

Informants to the study were chosen by Polisregion Syd's Intelligence Department. Selecting informants through a structured format, in order to generate a big span between SI analysts, OI analysts and TI analysts were, however, not possible. Instead, those participating as were asked by the department. The selection resulted in a diverse group of informants, most focused on OI, while a few from SI. However, none from TI. While this did not explicitly interfere with the purpose of the study, it could, nonetheless, possibly be an influencing factor for some answers above other. It is worth to mention that serious consideration went into how the relationship between the interviewee and the interviewed shaped the answers of the conversation. Taking into account what to consider when conducting elite-interviews; how it reflects power-relations and reduces the interviewer to primary a listener rather than a participant,<sup>100</sup> such interferences were marginalized by the informants being very co-operative.

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<sup>98</sup> Ibid. p, 15-16.

<sup>99</sup> Stake, Robert E., 2010, *Qualitative research: studying how things work*, Guilford press, New York, p, 95.

<sup>100</sup> Conti, Joseph A., and Moira O'Neil. "Studying Power: Qualitative Methods and the Global Elite." *Qualitative Research* 7, no. 1 (February 2007): 63–82, p, 63.

The informants were from two different groups within the same department. Usually, these groups are more or less rigid in terms of members, set by expertise on different subjects. The relatively low number of sources in combination with an inability to regulate tendencies selection bias is, therefore, an issue for confidence in the thesis ability to justify any of its inferences as a foundation for further research on ILP in general. Yet, the study will outline, problematize and question cognitive elements of the IA in IPL in Polisregion Syds Intelligence Department, thus providing a more contextual representation of something that *does occur in a specific context under the situated circumstances*.

## 4.4 Ethical Considerations

Considering the position and workplace of the informants in the study, the research emphasized as much anonymity as was possible, without interfering with the aim of the thesis, to conceal identities of those working within the intelligence department. This anonymity was mainly to cover on personal information that, if made public, presented a perceived risk to informants. Those working in intelligence divisions have huge leverage in police decision-making and ousting the wrong information may, therefore, result in external actors using the information to their own purpose. Thus, while ethical considerations were central to how the interviews were going to take place, there was a specific need to conceal as much personal information as possible. As such, any details regarding personal or organizational information that is perceived by the department as potentially damaging was crossed-out. While understandably it reduced what questions could be asked of organizational methods and previous experiences, it did not have any evident effect on what questions were permitted on individual cognition during the analysis

It was important to inform the sources what the study aimed to research. The informants needed to be made sure what the goal of the study was, how the information was to be presented and through which channels. Again, due to the confidentiality of the subject of interest, guidelines had to be outlined for the study and its results to be approved.

Lastly, participation was completely voluntary. Subjects were asked to participate and presented with the goal of the study before the interviews took place. Although participation was not asked directly, the contact-employee of the department instead undertook the assignment to locate potential informants and inform them about the study.

## 4.5 Framing, recording and transcribing the interviews.

When framing the interviews to research a particular subject, it is vital to initially pinpoint what the study seeks to research, and how the questions can confine the interviews to that topic. The subject of this thesis is how analysts evaluate information in IA in ILP. The interview-questions will initially be general on the topic of cognition and subjectivity in IA. This is to explore the course of action that effectively shapes how the overall task of how analysis is made. Principally, the questions will concern how the analysts identify

and assesses external parties, their agency and intentions. How they interpret ongoing events and intercept warnings of threats, how they understand the cause and effect of agency, and how they verify their assessments.<sup>101</sup> To develop a further understanding of the IA in ILP, the follow-up questions are designed to inquire how ILP limits and benefits IA.

This choice is made due to how the thesis first seeks to consolidate the subjectivity in analysis before questioning the specifics of ILP, rather than going the other way around. Such an approach would perhaps be more directly directed towards the aim of the thesis, but it would also increase the chance that the conversation becomes too confined in particulars and reduce the chance for comprehensive answers, that are important due to the low number of informants. One question can then be - *How does the initial information help guide a further assessment of information?* followed up by - *How does this differ between criminal cases?* As such, the second question adheres more to the practical undertaking of a certain type of intelligence analysis, in comparison to the first.

With the interview's quality being confined to the dynamic of the researcher and the informant, the interviews were purposefully conducted in a relaxed fashion, which helped enforce confidence and reduce distrust. Affirming the purpose of the study, all of the interviewees then regarded it as a tool for self-reflection and improvement, rather than as confrontation or critical evaluation. Seeing that it was of definite necessity to avoid the informants, due to the low participation, from being dishonest in their description of what they were really doing and thinking.<sup>102</sup>

How to interpret the qualitative information is an important question when researching any social science. Due to how the subjective perceptions of the researcher alone permeate any information consumed and reproduced,<sup>103</sup> what techniques are utilized to regulate these tendencies will ultimately also affect the methodological reliability. The usual interpretation goes through the simple input-formula of what has been seen, heard and or read.<sup>104</sup> The choice of doing auditory interviews restricts this to only what is heard, and how things are said. While combining several forms does provide a more comprehensive picture of a phenomenon, text-material was not accessible for consumption and neither was it possible to observe analysts in action. Both due to confidentiality.

The interviews will be recorded on an isolated personal recording device. This is the only place where the information will be retrievable. After each interview, the information will be transcribed according to standard typography, thus only focusing on what is said, but not on what is done, during the interview. The transcriptions will be comprehensive and include all spoken language. The purpose here was to provide the sources with a clear representation of the conversation that can be easily comprehended.

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<sup>101</sup> The framework to develop the questions stems from what, in paragraph 2.3 'The Analysis of Intelligence', is argued by Agrell to be the general features of what should guide Intelligence Analysis.

<sup>102</sup> A well-known problem for interview's, commonly known as the 'attitudinal-fallacy'. For more on the subject, See: 'Talk is Cheap: Ethnography and the Attitudinal Fallacy' by Collin Jerolmack and Shamus Khan, 2014, in *Sociological Methods & Research*, Vol. 43(2) 178-209.

<sup>103</sup> Alvesson, Mats, 2011, p, 2-3.

<sup>104</sup> Cornie Glense, 1999, *Becoming Qualitative Researchers*, 2<sup>nd</sup> edn, New York, Longman, p, 130.

To locate and minimize any apparent bias in the interpretation notes were taken on what personal presumptions arose from each interview. In turn, before the analysis took place, these were re-visited, reviewed and subsequently taken into consideration. After the information on the recording devices was transcribed, the interviews were listened to a second time, in order to pick up material that could have been missed the first time around. The transcriptions were sent to the department to be checked for any information that potentially could harm the individuals or the organization. This information was in that case crossed-out.

## 4.6 Operationalization

The aim of the thesis is to explore and understand how cognition influences how the analyst assesses information and verify their assessments. To do so, the collected empirical material will be reviewed through the theoretical assumptions of cognition. By doing so, the thesis will make it possible to understand if and how cognition and in practice results from intuitive, conscious reasoning or organizational origin.

However, due to how the theories attempt to explain cognition, in a general sense, the theories have to be delimited, operationalized, in order to provide concrete inference. The theories have therefore been demarcated into distinguishable variables that summarize the key tenets of what the theory aims to formulate.<sup>105</sup> For instance, if previous experiences are mentioned as prominent when assessing information, it will be understood to be something that relates to System 1 cognition. It may also be so that the informant is perceived to hint at previous experiences as influential, yet not explicitly expressing it. Such cases will also befall into the same category. This is where the interpretive approach becomes realized.

An abductive approach has been selected to guide the categorization of information. Because how cognition functions are still relatively unknown. While the theories attempt to bridge between hypothesizes developed through inductive studies and actual representation, they nonetheless lack a complete framework to understand cognition. In this case, they nevertheless attempt to cover how the analysts perceive themselves as thinking. As such, the theoretical components are formulated both by an understanding of what the theories attempt to describe and attempt to cover up as much of what is said in relation to cognition as possible.<sup>106</sup> In turn, this is used to understand how individuals think, both individually and as part of an organization. Thus, the result is associated with a 'most-likely' standard, more than a precise description.

By categorizing collected material according to these variables, the thesis aims to highlight where the thinking is located and make it a simpler task translating the results into a subsequent practical response.<sup>107</sup>

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<sup>105</sup> Figure. 4

<sup>106</sup> Teorell, Jan & Svensson, Torsten, 2007, *Att fråga och att svara: samhällsvetenskaplig metod*, 1. uppl., Liber, Stockholm, p, 51-53.

<sup>107</sup> Andersson, Bengt-Erik, 1994, *Som man frågar får man svar: en introduktion i intervju- och enkätteknik*, 2. uppl., Rabén Prisma, Stockholm, p, 43-45.

Figure 4 outlines the operationalization of the theoretical framework

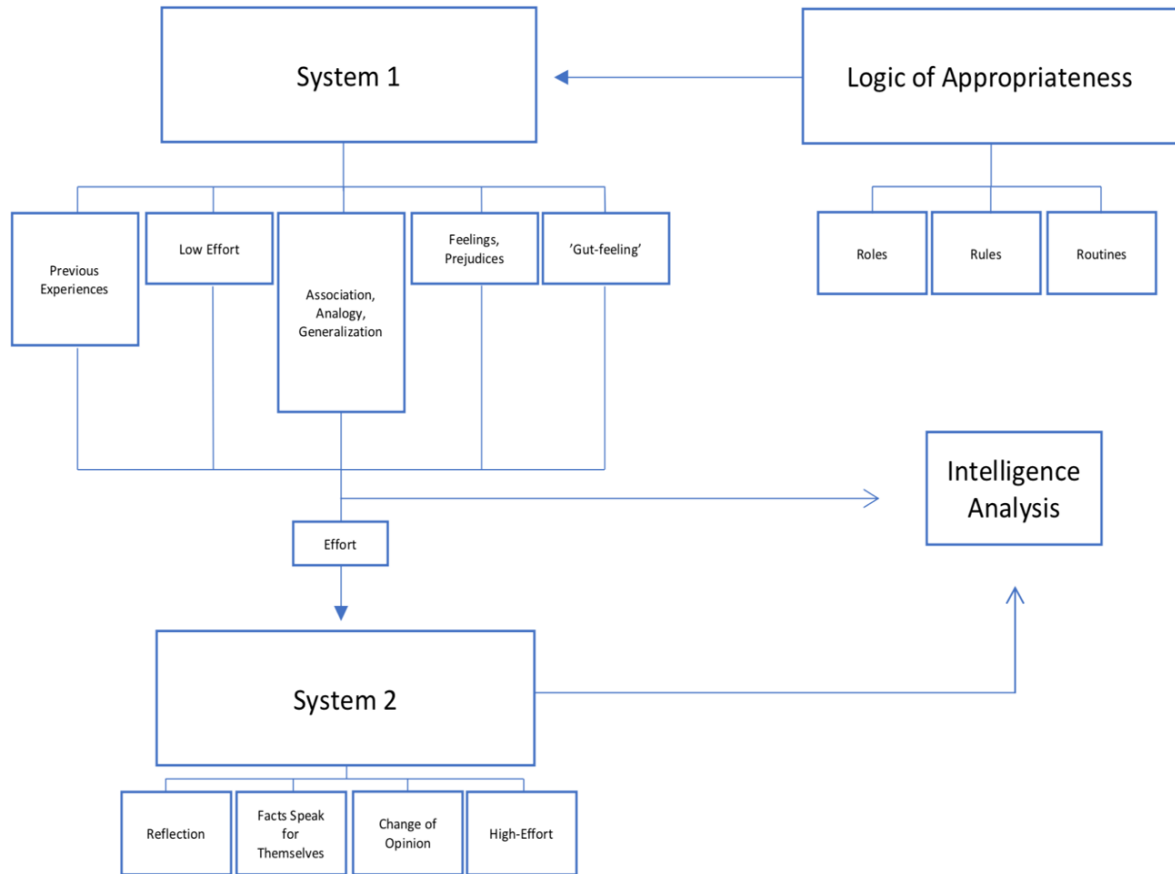


Fig.4



## 5. Analysis

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The analysis will outline how the assessment and verification of information by analysts employed at Region Syd's Intelligence Department by affirming to the theoretical framework. It will do so by examining how cognition, as outlined by the theoretical framework, takes place during the operational procedure of intelligence analysis. Further, the analysis will question and problematize the cognitive dispositions in the analysis.

The analysis was structured in layers. In the first layer, the research questions demarcated what material is being analyzed below. In the second, using System 1, System 2 and LoA as categorical signifiers, the material is further divided into where it is through interpretation assumed to be most applicable. This was to create a linear and structured analysis that could be easily deconstructed and further used to create additional, subsequent hypotheses for future studies or practical responses. In some cases, the information would fit into more than one category. To formulate distinguishable categories the choice was to view different types of cognition as something the analyst consciously choose to use.

What could be observed in the collected material was that all informants admitted to some degree that personal interferences had a role in what information was deemed important and, explicitly or implicitly, resulted in affirmative predispositions. These could be more or less impactful in predictions.

### 5.1 How do analysts assess what information is important for the analysis?

What decided how the analyst should determine what material was important to the analysis was predominantly an individual choice. Assignments did exist, and analysts were to a certain degree confined to their area of expertise. But each informant was responsible for their own work and setting up their own standards as they best saw fit. In turn, there was a variety of methods employed. However, all informants began their work by, through an assortment of methods, find information that they considered important. Through this, they then formed a hypothesis, that functioned as the foundation for the analysis. How this process ensued is outlined using the three theoretical approaches.

#### 5.1.1 System 1

The cognitive approach of System 1 was one of the ways that informants used to locate the information they assessed as important. With System 1 emphasizing intuitive association through recognition of patterns and ideas, those cognitive approaches that relied on using some form of associative cognition were included.

It materialized, for instance by the informant noticing something that did not feel right<sup>108</sup> in the flow of information or noticing that something contradicted<sup>109</sup> what the informant presumed would be normal. Thus, finding information that was deemed important was by looking at what criminality was perceived to entail.

### 5.1.1.1 Crime as a Social Phenomenon

All informants, although to different degrees, inferred that criminality was a social phenomenon that could be understood with the right kind of knowledge. Some informants outlined this as a formula between activity and modus.<sup>110</sup> Whereas what these represented was constantly fluctuating – because the operational climate of criminality is very much determined by international, national and regional dynamics – they were nonetheless central to understanding how criminality operated and manifested. For instance, smuggling narcotics was a constant for activity of criminals. But what drugs that were considered in, or modern, very much changed.<sup>111</sup> In turn, the modus, the methods of transporting, varied. In turn, understanding what influenced this pattern was essential for future predictions, and crime was to be understood as somewhat predictable, but only if the analyst reserved the proper knowledge for understanding how it operated.

This approach of conceptualizing criminality was considered practical for two reasons. Firstly, it assisted the analysts to draw links between events on a common-denominator standard, based on general assumptions of what the situated criminality, or activity, looked like, instead of looking at the specifics of each case, thus involving seriously more resource investments. Secondly, it also built on the analyst's ability to use their own experience of previous cases to conceptualize current modus. An informant referenced to this knowledge as a personal backpack a container of the skills the analyst brought with him from previous experiences and carried with him through the work.

Building on this, crime was often argued to be a product of what criminality required those partaking in it to do.<sup>112</sup> Attempts of selective profiling were therefore rare, with one informant even describing it as practically impossible, due to the limitless variables that resulted in certain acts.<sup>113</sup> Thus what was assessed as important was not individual cases, but what they represented in the larger scale. The focus of what was considered important was, therefore, information that could assist the understanding of the underlying reasons for trends in criminality, more than on the specific motives of certain criminals. For instance, increased shootings often came as a consequence of something more than individual motives, these were ramifications of something else.

“Individuals, however, change somewhat.

Calle ends, Mårten starts. But the phenomena [of crime] itself remains.”<sup>114</sup>

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<sup>108</sup> Interview 4.

<sup>109</sup> Interview 3.

<sup>110</sup> Interview 1, 3.

<sup>111</sup> Interview 5, 6.

<sup>112</sup> Interview 7.

<sup>113</sup> Interview 2.

<sup>114</sup> Interview 7.

### 5.1.1.2 Remembering Specific Individuals and Objects

On the other hand, most informants admitted it could sometimes be difficult to not memorize specified information, for instance, individuals.<sup>115</sup> Additionally to the formula of modus and activity, these individuals were argued to be generally associated with crime, either indirectly or directly. When exploring this notion further, it appeared that the frequency of mentions in relation to some form of crime would impart these individuals as more suspicious, becoming what Grabo themed indications.

Following, if these individuals appeared in the flow of information, it could possibly suggest that any information that was associated also could hypothetically indicate some form of criminality. As of so, they created signifiers in the flow of information, automatic high-notes.

“But then it is... its very reoccurring [...] and then there is a lot of reoccurring individuals. And it is like... well, that person I know... and then I know, well, you don't have to doubt that [information].”<sup>116</sup>

This was not restricted only to individuals. In another interview, an informant exemplified how cars that were used by a particular group of criminals could disappear, then reappear sometime later in the ownership of someone else. When this happened, the car itself would raise suspicion of a crime, regardless of who was driving it.<sup>117</sup>

The divergence between the ‘phenomenon approach’ and the ‘particular approach’ did not, however, result in the exclusion of one on the cost of the other. Instead, both functioned simultaneously to create a practical framework of what was considered interesting, normal and could be used to quickly recognize patterns. Patterns that could be used to simplify and categorize information and quickly recognize abnormalities. Accordingly, presumptions of criminality and regularities came to form what was considered normal. In turn, it became an influential factor in the assessment of what information was considered important to the analysis.

There are advantages and disadvantages to this approach of locating abnormalities. It is practical because it is fast, does not require a high level of investment and it draws benefits from the employee’s previous knowledge to reduce resources spent. It is potentially impractical because it relies on information that already exists, and is, therefore, less prepared to deal with big changes, such as a new type of activity. Further, an informant pointed out that one must constantly question what is normal in the first place. Normality is very much a loaded expression, based on a notion of how reality should look according to personal preferences, not always in line with departmental.

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<sup>115</sup> Interview 1,4.

<sup>116</sup> Interview 1.

<sup>117</sup> Interview 5.

“Thus, it is possible to argue that certain types of crime, even if it is expected a certain number of murders, that the normal level cannot be the least acceptable.”<sup>118</sup>

In the department, therefore, System 1 becomes a practical tool for managing assessments under non-optimal conditions. But too much confidence in their own valuation also means that the analysis can take a non-realistic form, and lead to inefficient decisions.

## 5.1.2 System 2

The System 2 approach to assess the information of importance was also frequent. These were approaches that allowed information to speak for itself and approaches that reflected over the analyst’s perceptual biases. Although completely isolating oneself from one’s own intuition is virtually impossible, due to how System 2 still relies on System 1 to initiate the thought process, the cognitive approach of System 2 emphasizes an effort to distance oneself from intuitive thinking.

### 5.1.2.1 Facts Speak for Themselves

A System 2 method that assisted informants in finding information was to review regional crime statistics. Almost all informants mentioned being benefited by this method when finding information that was interesting to analyze. When looking through this information, the informants were never really sure what they would find, nor what new information it would introduce them to.

Crime-statistics were described to exist in several forms, stretching from plain Excel-spreadsheets of documents recollecting numbers of reported crimes and arrests, or the general databank through which information was usually retrieved.<sup>119</sup> One informant described it as:

“A collection of data. Where all the recorded information exists. [...]. And there [on the databank] you can select different categories to examine. About people, vehicles, crime, municipalities etc.”<sup>120</sup>

When using a method that relied on statistics and reports, informants attempted to find possible explanations for fluctuations in the numbers. Relying on statistics and reports to introduce new information was generally seen as a practical method to stretch beyond what the informants themselves considered. When utilizing this method, what mattered was less the recognition of previous patterns, but rather allowing the statistical numbers to determine the search for what information was considered relevant. In fact, those

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<sup>118</sup> Interview 3.

<sup>119</sup> Interview 5.

<sup>120</sup> Interview 2.

feeling most comfortable using this method, also emphasized a main reason for doing so was to distance themselves from any subjective bias.<sup>121</sup>

In turn, it assisted the informants to find information independent of cognitive dispositions. In fact, one informant went as far as to suggest that statistics and mathematical equations had the potential to replace subjective interpretation in the future.<sup>122</sup> Such an approach would be intriguing in practice but relying too much on numbers could result in difficulties dealing with the complexity of social interaction. Attempting to reduce the predictions of crime-occurrence into complicated evaluations of yes and no's would probably impair the ability to analyze the multifaceted probability of agency, comparative to the WYSIATI bias of System 1 cognition. One informant continued that approaching crime in this fashion did not take into account the potential 'butterfly-effect' between events over a longer period of time.<sup>123</sup>

A practical issue of the approach to make use of reports and statistics was the restrictions Swedish police law administered on storing information. According to Swedish Police Data-Law, the information in this data base can only be stored according to regulations,<sup>124</sup> and files containing personal information usually lasted around 3-5 years if the individuals did not participate in any criminal activity during that time.<sup>125</sup> This System 2 approach was therefore obstructed in some cases and made informants instead to rely on System 1 approaches to assess information that could be interesting for the analysis.

Hence, it generated a need to rely on information from other analysts within the organization that could recount old cases from memory. Since recounting is influenced by how a particular individual remembers a particular case, it creates a situation where, although the enquired analyst may attempt to be as neutral as possible, it is difficult to avoid perceptual biases.<sup>126</sup> That so was the case appeared to trouble most informants. One informant going as far as insinuating this to be one of the main practical challenges for ILP in Sweden in the future, as information could have significant value later on.

“So absolutely it [the data regulation law] counteracts the very idea [of intelligence], to delete information.

I believe all knowledge fundamentally is of value.

It is all about finding the right context for its usage”<sup>127</sup>

### 5.1.2.2. Actively Searching for New Perspectives

Informants attempted to distance themselves from having a selective bias by actively reading up on academic research, scientific literature and open sources and reflecting over their own presumptions. This was described as having theoretical and practical consequences, and it assisted in introducing new concepts,

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<sup>121</sup> Interview 6, 7.

<sup>122</sup> Interview 7.

<sup>123</sup> Interview 3.

<sup>124</sup> <https://polisen.se/tjanster-tillstand/belastningsregistret/gallringsregler/>

<sup>125</sup> Interview 5.

<sup>126</sup> Interview 5.

<sup>127</sup> Interview 7.

approaches and perspectives. In one interview, the informant recalled reading about a previously unknown informal practice of financial management. In turn, this led to the informant investigating the economic institution utilized by individuals related to crime from a new perspective, which in turn assisted in locating a previously undiscovered type of informal monetary institution.<sup>128</sup> Other informants recounted similar situations, as reading up on previously unknown areas had an effect on what information they would consider important and provided entry points to understand criminality in a new way.<sup>129</sup> The method in itself thus provided a more reflective and nuanced approach to assess what information was important. Constantly using the method, however, was difficult most informants admitted. To constantly adhere to a neutral representation of reality required informants to actively distance themselves from their intuition. Staying open to new perspectives could, therefore, be challenging.

"[...] you have to constantly challenge what you think,  
that is really the art of intelligence, and I can feel that it is difficult in the long run."<sup>130</sup>

Because reflection and consideration often came to the expense of time and required more efficient management of resources. The sustainability of this approach over a long period of time was therefore questionable, and informants stressed how as an analyst constantly needed to motivate themselves in order not to unconsciously rely increasingly on initial intuitions. While finding new approaches to locate previously unknown information or perspectives always has been an integral part of the analysis of intelligence, although doing so is a struggle against what one informant stated as "*what makes us human*",<sup>131</sup> the informants appeared to find it satisfactory to do so.<sup>132</sup>

This approach of reflective thinking and utilizing information to speak for itself is in no way, however, unique to ILP. Rather, it stems from the analyst having to find new approaches to understand the everchanging environment that is being analyzed. For instance, someone who works with military intelligence probably watches the latest news to get an update on international relations, and those in monetary intelligence to actively search for the newest up-coming firms on the market.

### 5.1.3 Logic of Appropriateness

A third way to interoperate what information is considered important is through the Logic of Appropriateness. This implies evaluation as being done on organizational norms and procedures. Unlike the two previous paragraphs, the LoA considers the organization as something that emits behavioral regulations on the analyst. In the Region Syd's Intelligence department, this was encapsulated within two components of the theory: The Roles and Routines of IA.

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<sup>128</sup> Interview 5.

<sup>129</sup> Interview 1, 4.

<sup>130</sup> Interview 7.

<sup>131</sup> Interview 6.

<sup>132</sup> Interview 1, 2, 3, 4, 5, 6, 7.

### 5.1.3.1 Expertise and Roles

Within the department, every analyst has some form of expertise. Expertise ranges from method-experts to crime-type-experts. Experts, in turn, are primarily responsible for analyzing their respective expertise. These roles that analysts reserve implies certain responsibilities along with respective expertise.<sup>133</sup> For instance, someone specializing in narcotics is also, both formally through employment instructions, and informally through previous knowledge, somewhat restricted to reading up on just their kind of information.<sup>134</sup>

“[I]n the formal, it is probably that you are specialized in different areas. And then it is usually so that if the person [is] looking at a problem... she or he often finds that problem.”<sup>135</sup>

Such distribution constructed an institution where analysts, for the most part, remained within their area of expertise. This institution made possible that there were almost always analysts who could offer greater insight into a specific case and assisted in guiding what information that could be important.<sup>136</sup> In so, analysts seeking information from other areas than their own expertise could rely on other analysts to tell them what could be important.

This should not be understood as that the workplace is divided into clear divisions of expertise, where analysts only have information about one subject, and chooses to limit themselves to that specific. Like one informant stated, an analyst initiates his or her own investigative process into most subjects before perhaps locating someone with more expertise in the area.<sup>137</sup> Yet, attempting to locate any undiscovered important information on subjects that were unfamiliar was often, in relation to time, impractical. So instead, one informant detailed you relied on colleagues because “*for most of the things you discover, there is someone who is responsible for dealing with those cases*”.<sup>138</sup>

This system of experts, all of which had different subject areas and its intrinsic dynamics, is in itself very much acknowledged by the informants and considered as something with more benefits than damaging influence.<sup>139</sup> One may even argue that if analysts perceive themselves as important to the department and able to assist other analysts, they also experience a higher initiative to continue and improve the work they participate in. It could also be that someone from another area of expertise came across information that was then shared with the person responsible for that particular area. But this was most often linked to the resources available at that moment. When the time was of the essence, sharing such information was secondary.<sup>140</sup>

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<sup>133</sup> Interview 6.

<sup>134</sup> Interview 4, 5, 6.

<sup>135</sup> Interview 2.

<sup>136</sup> Interview 6.

<sup>137</sup> Interview 5.

<sup>138</sup> Ibid.

<sup>139</sup> Interview 1.

<sup>140</sup> Interview 4.

In practice, this role-distribution along with levels of competence, do nevertheless serve to re-enforce a certain informal institution that affects what information an analyst considers interesting. The fact is that it is less complicated for analysts to do what they were best at. Relying on this institution thus assisted in reducing the effective distance between competence at the workplace and, therefore, was influential on what is understood as important information. Yet, on the other hand, it can also contribute to situations where analysts rely too much on their co-workers to provide them with the right information. Placing too much faith in the informal knowledge transfer is, therefore, a potential liability in times where it is needed the most.

Intriguingly, when the time was less important, some informants stated they adapted their method of finding relevant information by broadening their search to areas either related to their expertise or even began to scan areas new to them.<sup>141</sup> Looking at it from a larger perspective then, the department emerges to work large and wide when there are fewer restrictions, but is more précised and focused in the situations where time is a factor of importance.

### 5.1.3.2 Working by Routines

Since intelligence, regardless in what sector it is employed, fulfills the function of informing decision-makers by assisting with appropriate knowledge, the formal directives, and subsequently, the routines that form through the continued reenactment of those directives came to influence what was considered important.

Informants were not restricted from informing decision makers about what they considered important information. But what was defined as important was in principle related to what was requested.<sup>142</sup> These requests, most commonly referred to as the “*Polisoperativa inriktningarna*”. They are central to what type of criminality that is being prioritized in the different policiary regions in Sweden. Thus, if for instance, gang-criminality was central in these directives, information regarding motor vehicle theft would be down-prioritized if it had to be valued against the former.<sup>143</sup> Doing so then reformulated what informants considered interesting, to what had to be done. In short, its reinterpreted System 1 or System 2 important to situational requirement. Not having the opportunity to act on their own presumptions or methods was nothing that raised any criticism during the interviews, however. Thus, no informant mentioned any real quarrel with the routines.

However, there are many potential dangers with relying too much on routines to assess the importance of certain information. For instance, depending on a decision-maker to ask the right questions is not always beneficial. Those in demand are not always aware of the complex situations that constitute criminal activity. They may, therefore, request something that in a limited time-span cannot be answered in a comprehensible manner. Another issue is how those requests may want to direct focus on something that analysts perceive

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<sup>141</sup> Interview 4.

<sup>142</sup> Interview 2.

<sup>143</sup> Interview 5.



as a lesser issue compared to something ongoing. In this sense, routines become impractical, rather than serve to streamline the process of intelligence.

## 5.2 How does the analysts verify their assessments?

The interview's outlined two approaches informants used to determine the accuracy of their assessment. Either the informant attempted to confirm the assessment, the established hypothesis, that had been established, or falsify it. The department did not have any conventional methodology to verify the hypothesis and disclosing individual methods was decided impractical in terms of giving away confidential information. As such the paragraphs below will treat the methods rather generally according to what they were purposed to do, rather than go too deep into their specifications.

### 5.2.1 System 1 – Confirmation

The methods that conformed to System 1 to verify hypotheses all came from the ability to confirm the established hypothesis.<sup>144</sup> Although this 'confirmation method was regarded less reliable among all the informants, it nonetheless presented itself useful,<sup>145</sup> and sometimes necessary,<sup>146</sup> in cases where intelligence had to be produced under duress or in cases where the material was deficient. How this method was used by informants, however, differed much depending on the informant and context in question. Sometimes, the confirmatory verification could be very broad and verify whole events. For instance, one informant interview described an former colleague predicting the beginning of a large-scale motorcycle gang war,<sup>147</sup> on the basis of a few recognizable incidences. On the other hand, a large number of events that were treated as separate incidents could through confirmation instead be understood as a number of crimes that occurred in relation to each other. In these cases, indistinguishable information could suddenly become evidently simple by someone being able to draw associations.<sup>148</sup>

In practice, the informants stated it could be somewhat difficult to distance themselves from their own initial conception of what the information signified, even later on during the analysis. So, when they came across new information that disapproved their initial hypothesis, it could prove difficult to completely disassociate from the initial hypothesis. One informant, for instance, expressed the difficulty of restarting from scratch when new information was presented. Most of the time, it instead had to be fitted into the current hypothesis, which would, in turn, be modified to account for the new information.<sup>149</sup>

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<sup>144</sup> Figure 5.

<sup>145</sup> Interview 4.

<sup>146</sup> Interview 6.

<sup>147</sup> Interview 5.

<sup>148</sup> Interview 1.

<sup>149</sup> Interview 2.

All informants agreed that confirming was both efficient and personally rewarding. Being right from the get-go not only confirmed one's value to the department but also awarded some form of authority in judgment.<sup>150</sup> Due to how time often was limited, verifying the hypothesis on confirmations was also sometimes deemed inescapable. If time was short, one informant described *“But when time is of the essence, it is just to find possible relations, and then construct an argument on that”*.<sup>151</sup> Another built on this, stating that sometimes it just had to be *“good enough”*.<sup>152</sup>

Another form of confirmation was how some analysts within the department apparently often came to assume the worst possible outcome as the most probable.

*“[...] but there are those who think like, “most information we analyze still only results in shit. So, everything that ends up on my desk will probably be shit as well”*.”<sup>153</sup>

While this subject was not further deliberated, it did reveal another way how confirmation led to verification of information. Lastly, most informants, either implicitly or explicitly, expressed a somewhat stereotypical view of re-occurring criminals as probable future offenders. As such, criminals were identified by their previous criminal acts, rather than appraised as innocent until proven differently. Thus, there appeared to be some sort of tendency to confirm possible assailants before any real efforts of verification were made. In only one interview was this brought up as a potential hazard, by an informant employed in SI.<sup>154</sup>

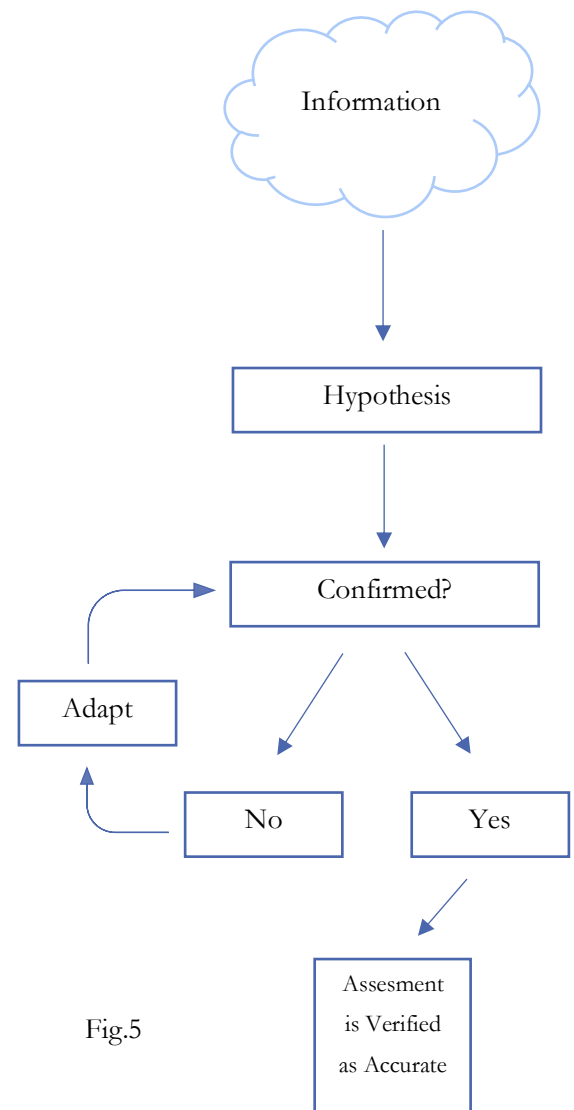


Fig.5

<sup>150</sup> Interview 5.

<sup>151</sup> Interview 6.

<sup>152</sup> Interview 3.

<sup>153</sup> Interview 5.

<sup>154</sup> Interview 6.

## 5.2.2 System 2 – Falsification

The techniques that conformed to System 2 to verify predictions were all done in an attempt to falsify the established hypothesis.<sup>155</sup> This way of going about verifying assessments was the approach informants preferred most overall, due to how it required the analyst to question any made assumptions in the hypothesis. It also required the analyst to take into account new and unexplored perspectives. Compared to the confirmation method, it still lies much at the hands of the analyst's knowledge on the subject. But whereas the confirmation method modifies and adapts to new information, the falsification falls apart if anything contradicts the hypothesis. In sum, it offers more in terms of reliability but requires more time and effort to be effectively operated.

Many informants, therefore, expressed it difficult to use optimally. An inquiry that arose during the second reread of the transcriptions was how many of the informants phrased the use of falsification as a standard to pursue, rather than something constantly used. This had implications on how the hypothesis was formulated. Either the analysts choose to start at the worst imaginable outcome, using the falsification process to exclude the most damaging potentialities. Or, they would just formulate a hypothesis by confirmatory method, then attempt to falsify it. In the end, as stated by one informant, *“The decision-maker has to make a decision. So, do I believe in my assessment, yes or no?”*<sup>156</sup> Yet in the end, the same informant pointed to causality as the ultimate verifier.<sup>157</sup> Another way of verifying the hypothesis using System 2 cognition was to evaluate the sources of information. Source-criticism provided an interesting subject to delve further into, due to how all informants contended open-source material had to be critically evaluated, yet most also relied considerably more on information that came from within the organization.<sup>158</sup> In an organization that strives toward a common goal, this is perhaps not that unexpected. Seeing that preventing-crime is fundamental to the Police, the incitements to criticize internal sources, especially in situations where time exerts leverage on efficiency, are perhaps not prioritized. Yet, looking at possible stimulations of a normative reporting of what should be done, it is nevertheless something that can

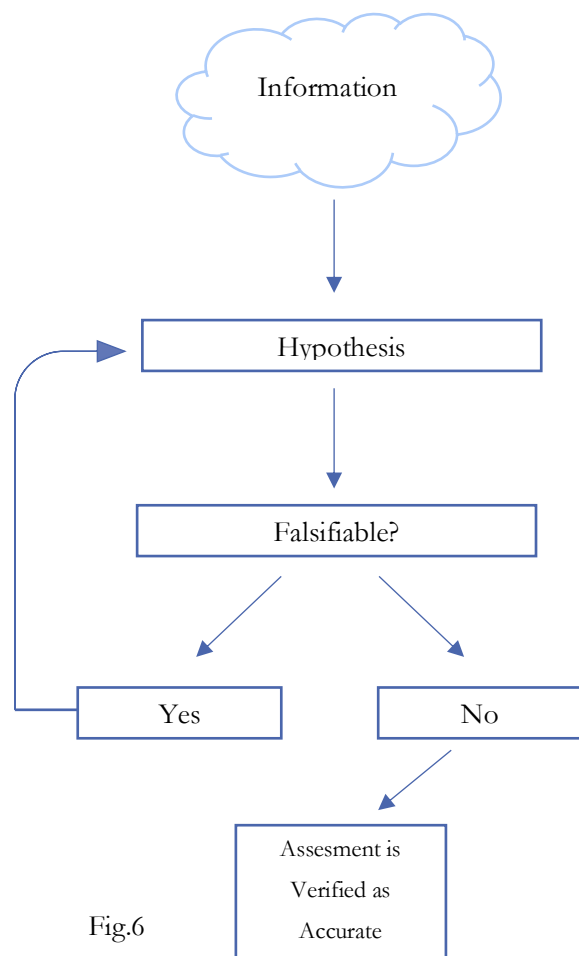


Fig.6

<sup>155</sup> Figure 6.

<sup>156</sup> Interview 3.

<sup>157</sup> Ibid.

<sup>158</sup> Interview 1, 2, 4, 6.

be further questioned. Especially since, as one informant stated, “*the puzzle really is constructed from below*”.<sup>159</sup> Lastly, every informant valued more information to less and newer to older.<sup>160</sup> On the question of what was most important in the process of making predictions one informant stated

“Amassing information. As much information as possible. Preferably as varied as possible, to be able to provide a... a good assessment”<sup>161</sup>

This was neither that surprising. But it provides additional questions on how such a method functioned in practice in relation to the falsifying method. Theoretically, such an effort would imply more restarts of the falsification process. In turn, how it would effectively take place in the context where time was of the essence suggests it as difficult to realize.

### 5.2.3 Logic of Appropriateness – Enquiring Co-workers

How informants verified hypotheses according to routines generally was by discussions that resulted from the established role distribution of expertise. The mix of expertise resulted in an institution where there was, in most cases, someone who could verify the hypothesis if enquired.<sup>162</sup> Most informants implied this as a tool to assist in the falsification of hypothesis, but there were also mentions of colleagues who confirmed hypotheses. Colleagues were described as sounding-boards and could usually be relied on to provide assistance.

Because the distribution composed of both method-experts and crime-type-experts, one informant stated that when these agreed on the assessment, it provided additional support for the hypothesis.<sup>163</sup> The institution made the informants feel like autonomous individuals, able to work alone but at the same time, being part of a bigger team, a collective.<sup>164</sup> Information was shared between analysts creating an informal knowledge institution that would contribute further in cases of duress.

Also, it created further manifestations in role layers, where an analyst both could be a formal expert that formulated hypotheses but also be an informal falsifier someone that people asked to falsify their hypotheses.<sup>165</sup> Sometimes in situations deemed necessary by analysts or the department, informal groups could form to verify information in more impactful assessments.<sup>166</sup> Thinking in groups was a preferred method, due to how it allowed some individuals to adopt roles of pure falsifiers. However, groups demanded more allocated time and resources, thus only being available in certain situations.

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<sup>159</sup> Interview 3.

<sup>160</sup> Interview 2.

<sup>161</sup> Interview 1.

<sup>162</sup> Interview 6.

<sup>163</sup> Interview 5.

<sup>164</sup> Interview 6.

<sup>165</sup> Interview 7.

<sup>166</sup> Interview 4.

This routine was amplified due to a high rotation of new employees, something that was utilized by those employed longer to bring new perspectives to assessments.<sup>167</sup>

“I have discovered now recently... well it began relatively early in my employment, that it is quite obvious that it is often my role to be the falsifier”

In turn, the informal institution created a workplace dynamic that all the informants felt comfortable in and permeated the department with a sense of humbleness.<sup>168</sup> Thus the informants were not afraid of being wrong, and in fact, most informants regarded it as a possible eventuality of their work. To verify hypotheses by relying on colleagues could, however, sometimes be complicated, due to how the informants relied on verification to exist when they searched for it.

Lastly, while there were no explicit rules to abide by, due to how each informant selected their own method of verification, bestowing hypotheses as true or using similar terminologies that determined absolute certainty was frowned upon. There was an evident culture in the department that coerced individuals to be comfortable with being insecure. Instead of promoting truth as the ambition, the informants abided to a least untrue standard.

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<sup>167</sup> Interview 4.

<sup>168</sup> Interview 3.

## 6. Discussion

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The purpose of this chapter is to outline how the results of the analysis and discuss them.

There is a difference between how informants aspired to think during the analysis, and how cognition actually took place. The question or resources appeared to guide most considerations of how to utilize the cognitive approaches. When able, all informants sought to utilize System 2 cognition, yet if the resources were not there, most relied on System 1 and LoA to guide them through the analysis. There did not appear to be any real affirmation to one set of cognition. Instead, System 1, System 2 and LoA were intertwined in the process of IA in ILP on Polisregion Syd's Intelligence Department.

### 6.1 Cognition in making analysis: different but similar.

The thesis has revealed that cognition in ILP can be understood in a variety of ways, a product of how the theories have aided in revealing the multiple ways of cognition. Undoubtedly, the theories present IA as something not as objective as Kent would prefer.<sup>169</sup> In this sense, the thesis has undeniably directed some form of critique against how IA takes place in Polisregion Syd's Intelligence Department. However, on the other hand, like Gunilla Eriksson's<sup>170</sup> and Peter Wright's<sup>171</sup> works also achieved in doing, the study has humanized the practice of IA. Observing the study in this light thus illustrates IA in ILP on Polisregion Syd's Intelligence Department not as representative of something that is uncharacteristic for IA, but perhaps characteristic, yet undisclosed to the public. The instance of cognitive constraints revealed signal that IA is a complex procedure, that is difficult to do optimally.

#### 6.1.2 Cognition in practice

How cognition materialized in the IA was more diverse than presumed when initially conceptualizing the study. Although all informants endorsed the same fundamentals of what cognition was supposed to look like, how it ensued on a practical level differed substantially between informants. In some interviews, informants accepted System 1 cognition as an actuality and used it to benefit their analysis. In other, the informants abstained as much as possible from System 1, instead choosing to rely almost completely on System 2 methods to get the job done. Most relied on LoA to assist, rather than counteract the analysis. Only in a few interview's did the organizational norms receive any evaluative estimation. When it did, most of it was aimed at how the routines that formed through decision-makers directives could result in potential inefficiency when conceptualizing the directive. There did not appear any noticeable difference between those employed in OI and SI. On the contrary, those employed at OI who focuses on a more definite area still appeared to view criminality as something greater than the actions of particular individuals. This was

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<sup>169</sup> Kent, Sherman, 1949.

<sup>170</sup> Eriksson, Gunilla, 2013

<sup>171</sup> Wright, Peter, 1988

perhaps the most revealing tendency of System 1 influencing analysis, as it permeated the fundamental perception of crime.

### 6.1.3 Intelligence as Resource Optimizing, yet not resource optimized?

The primary use of intelligence, as of today, is to optimize the allocation of resources. Yet, as frequently mentioned by the informants, they seldom felt there were enough resources available to do a proper analysis. When doing the analysis, thinking in System 2 was always esteemed, and all informants were well aware of the complications that using System 1 as a replacement for System 2 had. Still the lack of resources sometimes made informants rely on System 1.

To have confidence in System 1 was not rare among informants. Most informants appeared to use it to some degree when formulating hypotheses and then using different methods to falsify or confirm it. Many informants also saw it as important to when understanding information, and a tool that held practical implications when scanning for information that raised attention. To avoid relying too much on System 1 in situations where resources were limited, informants instead choose to use their co-workers as confirmers or falsifiers of assessments. This method did not imply any direct disadvantages due to how expertise was something informants took pride in, whether it was learned at the organization by doing, or brought in by new employees. Informants appeared to place much faith in each other's ability to do their job properly, and only in few cases did informants mention anything disagreeable about colleagues. However, affirming to this method was often an informal tasking, and analysts who wished to get response had to take it upon themselves to actively find a colleague who had expertise in the particular area. Likewise, the expertise was affirmed somewhat at a face value. Potentially challenging someone else expertise above the critical examination of the hypothesis, in terms of effort, thus would appear even further effort-craving. Also, when using this method, the analyst had to chance that the colleague had time and resources themselves, to invest in a case outside what they were currently working on.

### 6.1.4 Methodological approaches

Being an information generating system, IA in ILP have similarities in the procedure to other types of information generating systems, such as universities or newspapers. Information is located, analyzed and made into a product that can be consumed by a target audience. How this process took place on a more tangible level differed much between informants.

In the department, all informants described how the methodological approach was individualistic. While it by no means from the information collected, could be assumed that methods were *ad hoc*, their uniqueness suggested their development from what the informant perceived was the best approach to doing IA. The methodological choice appeared to have influences on how the informants operated analytically within the different forms of cognition. While methodological streamlining was promoted in one interview, with

mathematics as a tool for predictions in IA, such approaches may stretch too far beyond the human type of policing. This transformation of policing through the adoption of ILP is also problematized by Maguire.<sup>172</sup> Moving the methodological question to a higher level of abstraction, the question could therefore be interpreted as central to how intelligence and policing merges further in the future.

## 7. Concluding Remarks

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On a practical level, the thesis emphasizes both the good and the challenging in the relationship between cognition and IA. The informants appear to have a good understanding of how a cognitive approach of System 1 can influence the analysis, and how adhering to the cognitive approaches of System 2 provides a more constructive analysis. The LoA is mainly used to enhance performance but relying on it too much may result in further complications for the process of IA. Cognitively, risks are conscious and actively minimized according to individual preferences and resource allocation. The methodological choices made for the thesis does, however, prevent it from indicating any real casualization between cognition and analysis as a general phenomenon. Instead, results are seen as contextualized according to the institution in which the study has taken place.

The thesis contributes to the growing field of research on intelligence, that certainly will only expand in the coming years. Most importantly, the thesis will hopefully contribute to a further understanding of how ILP, and the police, in practice manage a larger amount of collected information. This thesis illustrated how analysts select information and why they select that information. It also revealed how analysts evaluate assessments, and why they did it in such fashion. Importantly, it was possible to discover how suppositions present in the literature on ILP also was visible in practice, such as how ILP resulted in valuation between a ‘number approach’, or a ‘human approach’, as Maguire proposes.<sup>173</sup>

On a bigger scale, this study explains how analysts try to deal with the cognitive constraints in a best possible approach by relying on methods that both stem from individual cognition and the effects of organizational norms on individual cognition. It adds to Kahneman’s argument that it is virtually impossible to separate oneself from one’s own suppositions, yet with *effort*, it is possible to alternate between an intuitive cognition and reflective cognition. This cognitive effort is also furthered when assisted by other individuals. But placing too much trust in others opinion to evaluate a problem might also backfire, due to how they also are containers of their own beliefs.

As of ILP in Sweden, due to how all Policiary regions share the same legal framework Polisregion Syd’s Intelligence Department operates according to, may share similar propensities. For instance, the Police Data Law might also be a matter in other departments, that results in a similar solution of relying on old employees to remember old cases, thus creating a requirement to use a cognitive approach

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<sup>172</sup> Maguire, Mike, 2000.

<sup>173</sup> Ibid.



adhering to System 1, whether one wants it or not. Thus, the study affirms that subjectivity is inherent to the policiary intelligence departments in Sweden: a finding that opens up for similar studies on other locations. However, it must be noted that cognition, intelligence and academics together still is in an early phase, and other departments may be discouraged to allow similar research to be permitted.

## 7.1 Further Research

Taken the results of the thesis, it does present itself interesting to further research the cognitive aspects of ILP. Considering that it is highly individual, yet, with enough participants, can outline some general tendencies of intelligence departments, additional studies can assist in constructing a cumulative knowledge of how to properly review and improve ILP. Especially seeing the field is in its early stages, with only a few comprehensive studies made. Only by understanding how cognition takes place can analysts improve their own cognition, and departments can develop more detailed instructions to inform analysts of their effects. To believe this study will have any big implications for future research is optimistic. Yet, it has revealed that the field is rich on information that can be further examined.

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