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INFORMATION EVALUATION: HOW ONE GROUP OF INTELLIGENCE ANALYSTS GO ABOUT THE TASK

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Abstract

Source and information evaluation is identified as being a critical element of the analytical process and production of intelligence products. However there is concern that in reality evaluation is being carried out in a cursory fashion involving limited intellectual rigour. Poor evaluation is also thought to be a causal factor in the failure of intelligence. This study examined the process of information and source evaluation as understood and practiced by, six West Australian Police Force, (WAPOL) intelligence analysts. Data was gathered by use of a focus group with that data being compared against the current literature. It was discovered that formal training in evaluation methods was limited. The significance of evaluation was however clearly understood and the lack of sufficient training was recognised as a limitation to analysis. The study however identified that this group of analysts did practice evaluation through a process of ongoing information contextualisation.

Keywords

Intelligence; law enforcement; analysis; information evaluation

INTRODUCTION

The evaluation of information is in theory a critical component of the intelligence process. However there is concern that in reality evaluation; defined as “an exercise in judgement about the reliability of the data source and the data quality and content, in terms of validity and credibility”, is being carried out in a cursory fashion involving limited intellectual rigour and “is in danger of being trivialised or even ignored” (McDowell, 2009, p. 195). It has been suggested that a malaise in evaluation may even be a causal factor in the failure of intelligence (Sandow-Quirk, 2002). In 2010 a study to examine the process of information and source evaluation by intelligence analysts in the West Australian Police force (WAPOL) to determine what methods they employ was undertaken. A focus group interview involving six intelligence analysts was conducted during which the analysts were questioned in depth on their knowledge of and approaches to evaluation. This paper details the results of that study and provides some insight to the process of evaluation as practiced by WAPOL analysts.

Background

Intelligence is a subject traditionally cloaked in secrecy and mystery, ethereal and elusive to the public. However the end of the cold war heralded the start of a wave of academic research that has been even more pronounced in the aftermath of the 2001 September 11 terrorist attacks. Since that event, terrorism has been among the most newsworthy subjects in the world with intelligence more often than not being intrinsically linked. The link however has in many cases been a negative one for the intelligence community, as its practice or malpractice has been blamed for providing ill-conceived intelligence, ignoring intelligence that does not meet political objectives and the for the failure to prevent or predict terrorist attacks. The September 11 terrorist attacks and the Madrid train bombings are cases in point and often cited as examples of the consequences of poor intelligence process. Within an Australian context the 2007 wrongful detention of Mohammed Haneef by Australian law enforcement agencies, brought about largely due to the poor evaluation of available evidence is an example of community perceptions of Australian law enforcement intelligence being sullied (Corkill, 2009). Due to the breadth of the domain, significance and importance of intelligence a deep body of literature has evolved focussing on subjects such as intelligence failure, intelligence analysis, how intelligence can be improved and the role of the intelligence analyst (Atran, 2006; Canton, 2008; Cooper, 2005; Gill & Phythian, 2006; Heuer, 1999; Lefebvre, 2004; Sandow-Quirk, 2002; Weiss, 2008). Most of this academic research has been focussed on intelligence from a national security perspective; yet there has also been a recent growth in law enforcement intelligence literature with primary reference to the concept of intelligence led policing (Cope, 2004; de Lint, O'Connor, & Cotter, 2007; J. Ratcliffe, 2002; J. H. Ratcliffe & Guidetti, 2008; Taylor, Kowalyk, & Boba, 2007; Verfaillie & Vander Beken, 2008). Research in this domain has predominately been concerned with the use of criminal intelligence and crime analysis and how it directs the policing process, whilst research on the role of the intelligence analyst is not nearly as pronounced as it is in national security literature. In particular, how

intelligence analysts evaluate information in the law enforcement domain is an area especially deficient in current research.

While many films and novels portray intelligence as consisting of glamorous spies who use futuristic technology in collecting information, in reality it is the intelligence analyst that is the heart of the intelligence process. The analyst instigates the collection of information and in turn is responsible for the managing and understanding of that information. It is also argued by scholars that it is the analyst that creates the actual intelligence product, distributes it, generates its context and provides advice and overall insights so that it can be of value for decision making (Cooper, 2005; Lefebvre, 2004). Therefore, it is important to understand the role and methods used by intelligence analysts in order to improve intelligence. If a failure of evaluation occurs, the true value of an item of information cannot be known and will in turn have a detrimental run on effect on the rest of the intelligence process; thus it can be argued that methods intelligence analysts allocate to evaluate information is in need of particular scrutiny. It is how information is evaluated by a group of intelligence analysts in the law enforcement domain that forms the primary focus of this research.

Objectives of the Study

The aim of this study was to gain an insight into what is currently an underdeveloped area of research and determine how the participants of this study view information evaluation. In particular the study set out to uncover the methods utilised by analysts, the time they allocated to evaluation, the rigour required to complete evaluation tasks and the importance they attribute to the task.

In order to achieve the research objectives of this project the following question was posed: How do law enforcement intelligence analysts evaluate intelligence?

Methodology

The outcomes of this study were achieved through the qualitative interpretation of a focus group interview consisting of six WAPOL intelligence analysts. The session concentrated on the question posed above and lasted for around 80 minutes. The focus group responses were then compared and contrasted too the existing literature on a number of topics relevant to the research including intelligence in the law enforcement domain, the role and importance of intelligence analysts, skills and attributes required by good analysts, intelligence failure, how uncertainty is dealt with in intelligence and evaluation methodologies.

ANALYSTS, ANALYSIS AND EVALUATION

Over the last two decades there has been a steady increase in the use of intelligence to support policing operations. With this increased utility of the function there has also been a commensurate increase in the number of intelligence analysts in the domain. Innes, Fielding and Cope (2005, p. 42) in trying to uncover core functions of analysts in policing, cited an English police intelligence unit chief as stating that the prime roles practiced by intelligence analysts include “identifying potential sources, identifying the source leads to crime, make sure we have our network charts up to date, make sure we are intervening in the right places... providing intelligence for resourcing patrols on the ground”. In conducting analysis, the analyst will attempt to answer key questions to determine inferences that help to develop an understanding of an issue or problem. These questions attempt to fill information gaps to help encompass the entire picture of a specific problem such as determining key individuals, key criminal activities and when, where, how and why these criminals are conducting these activities (Association of Chief Police Officers, 2007). In doing so, the analyst generates two major modes of intelligence analysis known explicitly as criminal intelligence and crime analysis. The former is concerned with “detailing the activity of a known suspect or suspects” while crime intelligence enhances “the police understanding about a specific crime or series of crimes” (Innes, et al., 2005, p. 44).

In conducting analysis, intelligence analysts are “essentially information translators, whose role is to review information and provide reliable intelligence in a practical and operational format” (Cope, 2004, p. 188). The U.K. National Intelligence Model describes four key products that intelligence analysts create as a result of the analysis process, specifically strategic assessments, tactical assessments, target profiles and problem profiles (Association of Chief Police Officers, 2005). Strategic assessments drive the intelligence function of a police force by detailing long term crime issues affecting the jurisdiction whilst tactical assessments drive the intelligence function through the focus of shorter term issues. Target profiles are concerned with securing “a greater understanding of either a person (suspect or victim) or group of people, in line with the control strategy priorities or high risk issues” whereas problem profiles aim to “secure a greater understanding of established and emerging crime or incident series, priority locations and other identified high risk issues” (Association of Chief Police Officers, 2005, p. 64). This enables proactive action towards identifying key problem areas and targets and in doing so dictates the police effort in preventing crime.

Information Evaluation and Uncertainty in Intelligence

Information evaluation is concerned with appraising an item of information in terms of its credibility together with an appraisal of the reliability of the source. As such evaluation is the “the considered judgement of the accuracy, completeness and inherent meaning of an item of information” (Palmer, 1991, p. 22). In the process of evaluation, items “will be evaluated by the analyst with his/her knowledge of the topic, from his/her experience of the behaviour, by comparison with other relevant data, or by some combination of all these criteria” (Palmer, 1991, p. 22). Information presented to analysts is rarely ever simply true or false and is disseminated in vastly different ways by a wide array of sources. Therefore evaluation is a much needed practice for analysts to implement as part of the overall process of interpreting the meaning of collected information (McDowell, 2009). According to Corkill (2008) there are a number of key indicators that analysts consider when evaluating information and sources including “source capability, source history or performance, information origin, source motivation, bias, information credibility, and information pertinence”. The importance of evaluation in intelligence production cannot be underestimated as a failure to conduct it properly will undoubtedly result in a failure of intelligence. There is a solid body of literature that validates the importance that evaluation has in producing good intelligence (Corkill, 2008; Heuer, 1999; Marrin & Clemente, 2005; McDowell, 2009; Moore, Kirzan, & Moore, 2005; Rodgers, 2006; Sandow-Quirk, 2002). Evaluation is needed to judge the integrity of sources and information; however it also plays a significant role in reducing and managing uncertainty in decision making.

The topic of uncertainty has particular relevance in the field of intelligence. George (2004, p. 386) quotes Carl Von Clausewitz as saying “Many intelligence reports are contradictory; even more are false, and most are uncertain.” The intelligence analyst must deal with diverse and often ambiguous types of information ranging from document to taped conversations, maps to computer files and therefore it is inevitable there will be a notion of uncertainty in intelligence production (Gill & Phythian, 2006). Simply defined uncertainty in an intelligence context is “what an analyst doesn’t or cannot know, either because of missing information, the complexity of an issue, or the nature of a mystery” (Canton, 2008, p. 488). There is a strong body of literature available dealing with the concept of uncertainty and how it can be managed in intelligence through a variety of different methodologies (Canton, 2008; Heuer, 1999; Kent, 1964; Marrin & Clemente, 2005; Weiss, 2008). Weiss (2008) identifies the need to consider alternating hypotheses - that is the attention to hypotheses that are divergent to what would be the most common interpretation of information in order to gain a wider picture of a problem - to combat the issue of uncertainty. Canton (2008, p. 488) calls for the a more rigorous and aggressive approach in providing value added intelligence to decision maker through a four phase plan which includes “drilling into what is known, unknown, and the implications of each on key issues; countering information gaps with aggressive action; calibrating knowledge of uncertainty through regular reviews and tests; and practicing transparent communication in discussions with policymakers about uncertainty.” Another method identified in reducing and simplifying information is the creation of mental models and the ensuing processing and evaluation of new information through those models (Heuer, 1999). While it can be argued that information evaluation is a component of each of the above techniques, there are systems available, although limited in number, where information and source evaluation is the primary concern.

Evaluation Systems

A review of the literature indicates that there are few formal evaluation systems used by analysts worldwide to evaluate information for intelligence purposes, although it is important that this review introduces the most common systems that are covered. By far the most well-known of these methods is the Admiralty System (alternatively called the NATO System) which is used to demonstrate the net worth of a particular piece of information based on both source reliability and data validity (Besombes, Nimier, & Cholvy, 2009; Corkill, 2008; McDowell, 2009). This alpha numeric grading system is used at the Western Australian Police Force and while there are different variants in use around the world, the traditional model is the 6 x6 matrix shown below.

Table 1. Admiralty Scale for Source and Information Evaluation

Source Reliability	Information Credibility
A Completely reliable	1 Confirmed by other sources
B Usually reliable	2 Probably true
C Fairly reliable	3 Possibly true
D Not usually reliable	4 Doubtful
E Unreliable	5 Improbable
F Reliability cannot be judged	6 Truth cannot be judged

(Adapted from Besombes, Nimier & Cholvy, 2009).

In the United Kingdom, law enforcement agencies operating under the National Intelligence Model use an alternative grading system commonly referred to as the 5x5x5 system. Similarly to the Admiralty Scale, the 5x5x5 report assesses the reliability of the source and the veracity of the information; however it also grades the handling sensitivity of the information as an additional component of the system (Spinelli & Sharma, 2007). Despite the extra risk component, the 5x5x5 system is, like the Admiralty Scale, a tool to collate already evaluated information. Neither system itself evaluates information per se. It is fair to say then that the literature available on evaluation systems is predominately superficial. In fact the literature concerned with how analysts actually practice the task of evaluation is quite limited, restricted mainly to the key grading systems used by analysts and not reaching deeply enough into the context behind making decisions on how an item of information should be graded.

What is Missing?

There is little doubt from the literature that in theory, evaluation is considered an essential step in the intelligence process. However some of the literature also states that in reality analysts may not be practicing evaluation to the level of its perceived importance (Corkill, 2008; McDowell, 2009). McDowell (2009) considered that some analysts excuse their lack of effort and attention to the process of evaluation because they find it too time consuming and difficult. For instance in some law enforcement agencies “the fundamental principles of source and validity evaluation have already been changed to reflect an impatience and frustration with the intellectual difficulty of blending the two elements. Evaluation grading systems are being progressively simplified.” (McDowell, 2009, p. 212). These are worrying comments but the fact is that there is very little if any research on analysts being formally asked to explain their thoughts on evaluation and more importantly, how they actually perform it. Considering evaluation is acknowledged widely as a critical component of the intelligence process, this is of concern and further research is required in this area.

RESULTS OF THE STUDY

Analysis of the focus group transcript clearly identified a number of issues most notably the lack of an explicit or formal process of information evaluation. This however was not evidence of a complete lack of information evaluation processes. It was clear that information evaluation does occur however the process is implicit and informal rather than proscribed.

The participants of this study do not appear to practice any strictly formal methods when involved in the task of evaluation and instead follow a number of informal measures that revolve around determining a number of aspects relating to an item of information such as its relevance and credibility as well as the history, capability and motivation of a source.

It was also noted that the participants evaluate these issues almost always according to the overall context of a particular issue, a holistic viewpoint that puts more emphasis on how items of information relate with what is already known than strictly on its own merits.

However, the focus group demonstrated that at least for these participants, the task of evaluation is treated very seriously and is no doubt considered an integral part of their role. All of the participants indicated that they

spend as much time as necessary to evaluate information and sources and as such time factors do not have an effect on how often or how extensively they evaluate.

Interestingly despite the perceived importance of evaluation, the participants professed that they had received very little training in how to evaluate and had instead largely self-taught themselves. A finding that suggests that the training provided to these analysts in regards to evaluation is largely insufficient and inadequate.

Discussion

The intent of this study was to determine what methods and strategies analysts use to evaluate information. Therefore it is significant that all of the participants involved in the focus group described predominately informal processes to explain how they went about evaluating sources and information. When evaluating information, the WAPOL analyst seems to investigate criteria consistent with the literature on information evaluation in that they consider information credibility, information relevance and when possible source history and source motivation (Herbert, 2006; Heuer, 1999; Marrin & Clemente, 2005; McDowell, 2009; Rodgers, 2006). Within the context of practice, it became clear that whilst they continually evaluate throughout the analytic process such evaluation practice is primarily informal processes predominately self-taught while on the job. This system, or lack of, is potentially fraught with danger because as McDowell explains, without formalised evaluation measures, there is the possibility that “individual analysts would be influenced by their own recent and case- specific experience and become vulnerable to their own individual biases.” (2009, pp. 211-219).

The analysts nominated the Admiralty Scale or NATO System as the only formal evaluation system that they were aware of. However the Admiralty Scale is effectively irrelevant because in practice it is rarely used and is not actually an evaluation methodology per se but a grading system. Of note almost all of the analysts repeatedly referred to the Admiralty Scale throughout the focus group discussion, speaking of it as if it was a true evaluation system. Additionally and perhaps more importantly, the Admiralty Scale was the only evaluation related topic taught to them in training. The context behind deciding what ratings to give an item of information was not an issue addressed in training and instead personal judgement was encouraged. This issue is something that complements Corkill’s argument that the Admiralty Scale could be a source of intelligence failure mainly because “it appears that to many analysts the Admiralty Scale appears to have become confused with the process of evaluation.”(2009, p. 9).

Evaluation processes, while predominately implicit are practiced by the participants of this study. This is made evident by the constant reference to the contextualizing of information as a means of testing veracity. For instance it was explained by the analysts that in most cases after a piece of information is reviewed, it is either validated, corroborated or rejected based on what is already contained in the body of the collected elements of information. A potential weakness of this contextual approach is that it can effectively eliminate evidence or information that contradicts the larger body of available evidence. This is a fallacious way of evaluating because it too readily negates what could potentially be accurate intelligence. Kovacs (1997) view that failures of intelligence can occur because of the non-use of information seems particularly relevant here as such an approach would surely increase the chances of this type of failure occurring.

Another significant issue raised from the results is the importance that the participants credited to the process of evaluation and the data obtained from the focus group indicated that this may be because of an apparent culture ensconced in WAPOL that strongly encourages vigorous evaluation. That the analysts explained that they had hardly received any training regarding evaluation made this point particularly interesting. There could be a number of explanations for this anomaly in the data. One such possibility is that because there is an inherent need in policing to find and present evidence to prosecute criminals, an organizational culture exists that demands that analysts always effectively evaluate the merits of collected evidence and thus are forced to learn this independently as part of their role. There is also the possible notion that the participants were over emphasizing the role evaluation plays in their work so not to look inadequate in this particular discussion. Nonetheless, regardless of the possible reasoning the underlying issue here is that, at least from the data of the focus group, there appears to be a clear need for better evaluation training provided to intelligence analysts at WAPOL.

CONCLUSION

The importance of evaluating information and sources is understood by intelligence analysts and is clearly demonstrated by the views of participants of this study and more broadly in the intelligence literature. However the acknowledged importance of evaluation is incongruent with the lack of detailed and comprehensive training provided to analysts. This study whilst small has highlighted an aspect of intelligence training that requires significant development and further research. Notwithstanding the lack of training opportunities provided it is

reassuring to note that analysts do actively seek to determine information veracity and truthfulness wherever possible.

REFERENCES

- Association of Chief Police Officers. (2005). *Guidance on the National Intelligence Model*. Bedford: National Centre for Policing Excellence
- Association of Chief Police Officers. (2007). *Introduction to intelligence led policing*. Bedford: National Centre for Policing Excellence
- Atran, S. (2006). A failure of imagination (intelligence, WMDs, and "virtual jihad"). *Studies in Conflict & Terrorism*, 29(3), 285-300.
- Besombes, J., Nimier, V., & Cholvy, L. (2009). *Information evaluation in fusion using information correlation*. Paper presented at the 12th International Conference on Information Fusion, Seattle.
- Canton, B. (2008). The Active Management of Uncertainty. *International Journal of Intelligence and CounterIntelligence*, 21(3), 487-518. doi: 10.1080/08850600802046939
- Cooper, J. R. (2005). *Curing analytic pathologies: pathways to improved intelligence analysis*. Washington: Center for the Study of Intelligence.
- Cope, N. (2004). Intelligence Led Policing or Policing Led Intelligence. *British Journal of Criminology*, 44(2), 188-203.
- Corkill, J. (2008). Evaluation a critical point on the path to intelligence. *The Journal of the Australian Institute of Professional Intelligence Officers*, 16(1), 3-11.
- Corkill, J. (2009). *Intelligence support to law enforcement: untangling the Gordian knot*. Paper presented at the Australian & New Zealand Critical Criminology Conference 2009, Melbourne.
- de Lint, W., O'Connor, D., & Cotter, R. (2007). Controlling the flow: Security, exclusivity, and criminal intelligence in Ontario. *International Journal of the Sociology of Law*, 35(1), 41-58. doi: DOI: 10.1016/j.ijsl.2007.01.001
- George, R. Z. (2004). Fixing the Problem of Analytical Mind-Sets: Alternative Analysis. *International Journal of Intelligence and CounterIntelligence*, 17, 385-404. doi: 10.1080/08850600490446727
- Gill, P., & Phythian, M. (2006). *Intelligence in an Insecure World*. Cambridge: Polity Press.
- Herbert, M. (2006). The Intelligence Analyst as Epistemologist. *International Journal of Intelligence and CounterIntelligence*, 19(4), 666-684. doi: 10.1080/08850600600829890
- Heuer, R. J., Jr. (1999). *Psychology of Intelligence Analysis*. Washington: Center for the Study of Intelligence.
- Innes, M., Fielding, N., & Cope, N. (2005). 'The Appliance of Science?': The Theory and Practice of Crime Intelligence Analysis. *Br J Criminol*, 45(1), 39-57. doi: 10.1093/bjc/azh053
- Kent, S. (1964). *Words of estimative probability*. Washington, DC: Center for the Study of Intelligence.
- Kovacs, A. (1997). The non use of intelligence. *International Journal of Intelligence and CounterIntelligence*, 10(4), 383-417.
- Lefebvre, S. (2004). A Look at Intelligence Analysis. *International Journal of Intelligence and CounterIntelligence*, 17(2), 231-264. doi: 10.1080/08850600490274908
- Marrin, S., & Clemente, J. D. (2005). Improving Intelligence Analysis by Looking to the Medical Profession. *International Journal of Intelligence and CounterIntelligence*, 18(4), 707-729. doi: 10.1080/08850600590945434
- McDowell, D. (2009). *Strategic intelligence a handbook for practitioners, managers and users*. Lanham: The Scarecrow Press.
- Moore, D. T., Kirzan, L., & Moore, E. J. (2005). Evaluating Intelligence: A Competency-Based Model. *International Journal of Intelligence and CounterIntelligence*, 18, 204-220. doi: 10.1080/08850600590911945

- Palmer, B. (1991). Strategic intelligence for law enforcement. Canberra: Australian Bureau of Criminal Intelligence.
- Ratcliffe, J. (2002). Intelligence-led policing and the problems of turning rhetoric into practice. *Policing and Society*, 12(1), 53-66. doi: 10.1080/10439460290006673
- Ratcliffe, J. H., & Guidetti, R. (2008). State police investigative structure and the adoption of intelligence-led policing. *Policing: An International Journal of Police Strategies & Management*, 31(1), 109-128. doi: 10.1108/13639510810852602
- Rodgers, R. S. (2006). Improving Analysis: Dealing with Information Processing Errors. *International Journal of Intelligence and CounterIntelligence*, 19(4), 622-641. doi: 10.1080/08850600600829858
- Sadow-Quirk, M. (2002). A Failure of Intelligence. *Prometheus*, 20(2), 131-142. doi: 10.1080/08109020210137510
- Spinelli, G., & Sharma, B. (2007). A paper-centred information system: effectiveness and quality implications in UK police intelligence units. *Journal of Convergence Information Technology*, 2(3), 11-21.
- Taylor, B., Kowalyk, A., & Boba, R. (2007). The Integration of Crime Analysis Into Law Enforcement Agencies: An Exploratory Study Into the Perceptions of Crime Analysts. *Police Quarterly*, 10(2), 154-169. doi: 10.1177/1098611107299393
- Verfaillie, K., & Vander Beken, T. (2008). Proactive policing and the assessment of organised crime. *Policing: An International Journal of Police Strategies & Management*, 31(4), 534-552.
- Weiss, C. (2008). Communicating Uncertainty in Intelligence and Other Professions. *International Journal of Intelligence and CounterIntelligence*, 21(1), 57-85. doi: 10.1080/08850600701649312