

Abstract

To better understand police intelligence practice, we examined practitioners' views of their work and their relations with the wider law enforcement community. We surveyed intelligence staff (N=110), and interviewed a random sample of respondents (n=12). Our analysis suggested that traditionalism and the dominant action-oriented culture limit the organization's understanding of intelligence practice. Largely, the focus in that context has been on street cops' propensity to reject reflection in favour of action but intelligence practitioners need also look to themselves. Too often, the philosophy of 'need to know', is prioritized over its antithesis 'dare to share'. Though perceived by practitioners as low-risk and consistent with organisational norms, we argue that inappropriately applied, 'need to know' is the enemy of efficiency and real accountability, offering low levels of reward and discouraging the kinds of partnership, reciprocity and multi-directional knowledge transfer that policing needs, to be successful in the information age. We reconceptualised an interactivity/isolationism continuum, used in the natural sciences, to help interpret that phenomenon. We argue that isolationism is but one factor in a complex organisational dynamic but it is a significant one because it can subtly limit the influence and reach of the intelligence milieu in previously unacknowledged ways.

Keywords: knowledge transfer; intelligence practice; organisational culture

Introduction: Police intelligence practice

Police intelligence units' *raison d'être* is to collect, analyse, and evaluate intelligence for incorporation into assessments that may inform the plans of others in the institution. Whether those in the operational world always appreciate their efforts, is moot. Despite the institution's commitment to intelligence-led policing, overwhelmingly it remains action-oriented (Reiner, 2010). Arguably, that has limited the development of intelligence practice and marginalised intelligence staffs. Researchers consistently have found that some operational cops saw intelligence staffs' efforts as ancillary to the 'real' business of policing (see for example; White, 1972; Amey et al, 1996; Cope, 2004; and Author 1, 2013).

Rather than representing a pragmatic rejection of more thoughtful approaches to the problem of crime as some (including Author 1, 2013 and 2016) have argued, the expression of these views may simply confirm 'street cops' rejection of increasing police managerialism (Reuss-Ianni, 1983), or reveal officers' insecurities over the civilianization and diversification of police functions and roles (Crawford, 2008). Those processes have only accelerated over the last 20 years in all of the uniformed public services, in the armed forces and in other service industries, which have experienced the introduction of late modern, post-bureaucratic, organizational reforms, intended to deliver 'models more suitable for volatile market conditions' (Morris and Farrell, 2007 p.1576). Against that background, through the eyes of practitioners, we critically assess police intelligence practice and reflect upon practitioners' relations with the wider law enforcement community. The study contributes to our understanding of the complex dynamics of that practice and its influence on the institution.

Knowledge generation and intelligence practice

The formal history of police intelligence practice in the UK began in 1883 with Scotland Yard's establishment of the Special Irish Branch to combat Irish terrorism. It was only in the 1960s that the British police extended the intelligence function into the mainstream (Wilmer, 1970; Grieve, 2004). For many years, it considered intelligence solely a support function (ACPO, 1975 and 1986; HMIC, 1997). Though eventually, it endorsed reforms made in the Kent force and adapted them into a national strategy (Amey et al, 1996). Arguably, that strategy - the UK's National Intelligence Model (NIM) - finally delivered the revolution in practice that insiders such as Flood (2003) and Phillips (cited in Rollington, 2013) had long advocated.

NIM's international influence has been considerable; it seems to have provided the intellectual foundation for the intelligence models of an increasing number of nations across the world (including: Sweden; Kosovo; Macedonia; Australia; and New Zealand) and to have reshaped standard structures and processes (see UNODC, 2006), even if its impact on the UK's intelligence system and its intelligence staff is far less than its advocates would have us believe (see Author 1, 2013).

Essentially, an elaboration of the standard intelligence cycle (see for example Ratcliffe, 2008; Phythian, 2015), NIM symbolized the police's efforts to provide a business focus to its practices. Though some progress in that context may perhaps be inferred; it is difficult to attribute that to the NIM (Author 1, 2013). Arguably, the financial constraints on the public policing institution in this age of austerity have had far greater influence on the reshaping of the institution.

Often, assessments of relations between policing's operational and intelligence worlds have focused on cop culture; street cops' action-orientation and emphasis on pragmatism rather than on reflection (see for example Greenaway, 1999; Author 1, 2013). Researchers also look to the intelligence world better to explain those relationships. Treverton and Hebbard, (2008 p.xi) argue that the 'tyranny of the immediate', a constant in analysts' work, limits deep reflection and real understanding of intelligence's meaning. In their study of law enforcement practice in Western Australia; Joseph and Corkill (2011 p.100) found that analysts' evaluations could be 'superficial' and therefore less readily accepted by their operational colleagues. Gill (1998, p.309) has argued that the influence of police intelligence units on the wider organization depends upon the extent to which they are able to encourage others to share their 'definitions of policing problems and potential solutions'. That may speak to the importance of persuasion, negotiation and other 'soft' skills in these relationships.

Methodology

Substantially, our empirical data were collected in a case study of police intelligence practice in England and Wales. The research has multidisciplinary features (two researchers' backgrounds are in national security and international relations; one identifies with criminology, the other with the social sciences more broadly) but we took an interdisciplinary approach to our data to answer the research question, 'What do police intelligence staffs' attitudes to their knowledge generation and transfer activities tell us about the influence and reach of intelligence practice in policing'?

Secondary data were collected through systematic analyses of the scholarly literature, official reports, reviews and so on. Primary quantitative and qualitative data were collected from a survey of law enforcement intelligence staff. More qualitative data were collected in semi-structured interviews with randomly selected members of the larger sample. Respondents provided personal accounts of their professional experiences and assessed individual elements of their work. We used standard analytic tools to make sense of our data. A self-selected sample of intelligence staff was surveyed ($N=110$). The composition of the sample is shown at Table 1.

Table 1 - sample characteristics (job role and specialist/non-specialist) **HERE**

We negotiated access to research respondents through the National Police Chiefs Council's Intelligence Innovation Working Group. The group's support for our endeavours, opened sufficient doors in a range of police forces and law enforcement agencies to enable us to collect the primary data we needed. Participants initially were recruited at a national intelligence conference. Subsequently, the snowball technique was used to reach respondents until saturation was reached. Respondents self-identified as specialists (employed in a headquarters role concerned with the investigation of terrorism or organised crime) or non-specialists (generalists employed in local policing units). The sample included members of 28 police and law enforcement bodies in England and Wales. Each respondent is referred to in this paper by role and by a number assigned by the researchers. 32 respondents were female, 73 were male, five did not declare their gender. The lottery system of random sampling was used to select respondents from this group for interview ($n=12$).

In the social sciences, there is a long tradition of drawing on phenomena more often associated with the natural sciences. For example, in the first half of the twentieth century, the science of ecology provided many ideas that were adapted and used to explain the social world. One of the best-known exponents of the ecological approach was Ernest Burgess, a significant figure in a pioneering group of US researchers active in the inter-War years who came, collectively, to be known as the Chicago School of sociology. Burgess was a key figure in the creation of a new sociological paradigm that adapted concepts from the fields of animal and plant ecology and then applied them to human behaviour (Park and Burgess, 1921).

Figure 1 – The interactivity/isolationism continuum - [HERE](#)
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We reconceptualised a continuum used in biology; often, in the study of aquatic parasites (see Poulin and Luque, 2004 and Stock and Holmes, 1988), to help us better understand the research situation and to convey understanding of our data. We acknowledge both the ethical and epistemological challenges inherent in borrowing conceptual frameworks from the natural sciences but we are satisfied that the complexity of the research situation merited our attempt to follow in the footsteps of scholars like Burgess to make sense of the milieu. We claim only that the continuum is a useful heuristic that may aid understanding of an extremely complex set of phenomena.

Our research focused on a particular policing sub-group, formed of those employed in the police intelligence milieu. We afford continuum its ordinary meaning as a range of entities that slightly differ from each other and that exist along a notional line between two poles. In ecological research, the term 'cline' is used to describe the infinite number of gradations theoretically possible from one pole to the other (see Blanckenhorn and Demont, 2004). In our version, interactivity is situated at one pole: isolationism, long recognised as a defining characteristic of police culture (see for example: Reiner, 2010; Skolnick, 1977; and Banton, 1964), is at the other. We explain the term

interactive as the process by which the intelligence world interacts with other elements of the police service, with partners, and with communities for their mutual benefit. More than that, it implies a predisposition, to do so. We define the term isolationism as the deliberate act of keeping one's affairs to oneself and the affairs of others at a distance. Again, we look beyond the instrumental and imply a reluctance to do so. The difference between each of the clines is imperceptible but at the poles they are quite distinct.

In practical terms, we encountered few meaningful difficulties. Our findings are indicative of the views of, and generalizable to, the UK law enforcement community's intelligence staffs. They are not necessarily generalizable to the wider law enforcement community though it is reasonable to suggest that the views expressed by respondents would be shared by others in that community in the UK and in similar communities elsewhere.

Research findings

Respondents ranked the factors that were significant to their practice from a list provided by the researchers. As Table 2 shows, there was broad agreement on the importance of skilled staffs, information technology, and HUMINT. Interestingly; the NIM, advanced by the service as the means by which intelligence would take centre stage in policing, was ranked at or near the bottom of most respondents' lists.

Table 2 – Respondents' ranking of elements of practice - **HERE**

We collected qualitative data on respondents' perceptions of their work. Our analysis sorted that data into three discrete themes: inside the bubble; capability and capacity; and advocacy and influence.

Inside the bubble

Respondents reported on their own practice and the physical, philosophical, ideological, and cultural divisions between the intelligence and operational worlds. The physical barriers between the two were perhaps the most easily explained. The other divisions were inferred from respondents' accounts which routinely were candid. Interestingly, respondents described the secret world as 'mysterious' (Intelligence manager N94), and 'exclusive' (Analyst N111).

Invariably, intelligence units operate in a virtual bubble; close to (sometimes co-located with) operational units but separated – often physically but invariably in terms of information flows - from the latter in the causes of 'need to know' and of operational security more generally (Grieve). DOI N108 described a kind of 'us and them' world where intelligence staffs' enthusiasm for collecting and managing data to help make sense of the world was not matched by others in the operational world. Naturally, respondents felt they had a better understanding of criminal intelligence work than their generalist colleagues; 88% of respondents considered themselves intelligence experts. Intelligence

officer N01 said that their knowledge was ‘better than the average officer’. Officer N52 said that the work required the kinds of thought processes and problem solving skills not necessarily found elsewhere in the organisation.

The policing world is more fragmented than it may appear to outsiders. Each of the 43 forces that make up the police service of England and Wales divides its intelligence assets between specialist units (dedicated to the investigation of serious and organised crime – usually serviced by force intelligence bureaux) and its local policing units. Regional intelligence units and a network of confidential units (responsible for managing the transmission of sensitive material between the police and national security and/or international agencies) complete the picture (Intelligence officer N86). Beyond that, the distribution of those resources was determined by executive decisions at the local level. Intelligence manager N74 said that in their force, everything was ‘very separated, very segregated, so that the Divisional Intelligence Bureaux (at LPUs) ... are] owned and managed by their local management teams. A negative was that the force had five different ways of doing everything ‘So every process ... is done in five different ways, due to local idiosyncrasies or whatever’.

Our data revealed something of an identity crisis in the secret world. Respondents were asked if they felt that intelligence work was a front-line or a support function. Of those who answered that question directly, 55 considered the work to be front-line: 47 considered it ‘support’ to the front-line. Manager N104 said it was a frontline function the work required ‘proactive decisions around threat and risk’. Manager N106 said that on a day-off, they were:

On the phone for four hours and made over 70 telephone calls regarding two unconnected operations ... I spoke with six source handlers and two deputy controllers to task sources to identify key intelligence objectives laid down to help save a life – that is not back-office work.

Manager N24 was one of nine respondents who talked about the limited appreciation in the wider organisation, of the realities of intelligence practice. The identification of intelligence work as a back office function represented a ‘lack of understanding of the value that strong intelligence functions can provide to community safety and crime fighting’.

Intelligence officers’ views on the subject were mixed. Officer N01 believed that the front line consisted solely of ‘response, neighbourhood and CID’. Officer N02 said intelligence work should complement front line response but was not in itself deserving of that label. Officer N05 agreed with that view. Officer N06 saw the work as both front line and back office, saying it was ‘front line... managing day to day risks [and] back office as regards longer term intelligence development and strategic work’. That point was developed by Officer N03. Agreeing with N06, they said:

The best intelligence possible will always be via the eyes of a police officer or via a recording device which necessarily requires front line activity... in the modern world of computer systems and databases a lot of backroom activity is needed.

Officer N101 felt the work was a front line activity because it actively supported front line officers in their ongoing investigations. They said:

Assistance extends from basic help with RIPA applications, advice on directing investigations to achieve their objects through the most cost effective and proportionate means. As well as covert assistance, implementing... static and foot observations... dealing with the subsequent [court] issues, and sensitive disclosures.¹

Capability and capacity

Many respondents considered that the lack of formal training provided undermined intelligence staffs' efforts. Though there was something of a disconnect between respondents' perceptions of their own skills and abilities and their satisfaction with their training. Just 58% of respondents considered themselves adequately trained for their roles. A significant minority (greater than 30%) felt their training had been inadequate. These are interesting findings in their own right but they also may say something about the identity crisis we described earlier.

The amount of training provided varied from force to force. The UK's College of Policing provides a variety of courses for officers and staff but though many respondents had received training in some form, we found that significant dissatisfaction with it. Intelligence manager N37 said that he found much of the training, repetitive. DOI N114 said that training was too rudimentary. The dominant view was not that the training was deficient but that there should be more of it. DOI N108 said that in their force, sworn officers received very little training in intelligence work. While the force's 300 special constables and 172 volunteers received no training at all.

In some cases, 'on-the-job' training was the norm. Of course, as one intelligence manager commented that may have considerable value but we should be cognizant of the fact that 'learning by mistakes', which was described as a positive, also can have significant negative consequences for the individual, for the organization, and for communities. In an earlier piece of research, a senior intelligence officer told this paper's first author that the norm was 'to sit around and wait for the wheels to fall off and then [when they fell off] to hide all the bits of paper that talked about wheels falling off' (Author 1, 2013 p.89), which is the kind of behaviour that may be construed as providing even more evidence of the intelligence world's isolationist tendencies.

Several respondents made the link between capability and intelligence outputs. Officer N02 said there was a need to develop experience and skills so that 'an ethos of pride in professionalism was encouraged'. Manager N10 summed up many respondents' views on this subject when they said:

Skilled intelligence staff are the most important part of good intelligence work. Those members of staff that are interested in the work, who know where to look, know who to ask, know how to

¹ The Regulation of Investigatory Powers Act 2000 (RIPA) is the primary legislation covering covert policing activities.

communicate and know how to write relevant and informative reports, are priceless.

However, DOI N108 said that staff were neither 'slick enough nor flexible enough' for the service's needs. Civilianization was a factor; the employment of civilian staff as intelligence officers was gathering momentum but it was starting from a very low base. There appeared to be less resistance to civilianization in principle (than, for example, was observed by Cope in 2004) but in practice – at least in one department - 'recruiting the right calibre of personnel had not adequately compensated for the loss of sworn officers' (Manager N24). In another, the too rapid replacement of sworn officers meant that many staff failed to understand 'the power of intelligence' (DOI N108).

Advocacy and influence

Some 12 years ago; John Grieve, the first appointee to the post of director of intelligence at Scotland Yard, called for police intelligence in Britain to be 'reclaimed from the secret world, made less threatening to communities and used in their service' (2004, p.26). Many respondents spoke about meeting that challenge but said that a significant factor in that context was the 'need to know' philosophy that undermined their efforts. Both manager N10 and officer N23 believed that their department's insularity meant that the police were continually playing 'catch-up' with the criminal element in society.

Officer N61 said that the organisation was conflicted; managers were promoted into the department without an intelligence background, 'making decisions based on what they think is the way to do things when in fact they create divisions and destroy good work'. The lack of effective leadership – also a factor in the capacity and capability of the units - limited the influence of intelligence staffs because when intelligence assessments reached the operational world, they were not able to compete with the pragmatic faith in experience and 'common sense' they encountered (Manager N10).

Some respondents argued for greater openness about intelligence success but they represented a very small minority of the sample. Only four respondents were willing to discuss their successes and then only in the most basic of terms. Officer N03 defined success as 'getting to the point where you have disrupted criminal activity or, even better, [provided] evidence to use in a prosecution'. N03 provided two examples. In the first case, human intelligence was developed to bring a prosecution against a man who was receiving stolen mobile phones. In the second, the deployment of a covert recording device not only confirmed the guilt of some suspects but also the innocence of others – an important factor in retaining the confidence and support of communities. Officer N05 described a case where human intelligence was developed to resolve a previously undetected shooting that had developed into a threat to life.

Few respondents questioned the importance of effective engagement with partners and with communities. Manager N10 said community engagement was an important part of intelligence work. Patrol officers needed encouragement to build relationships. Officers N06 and N80 both said it was important to build trust with others. Manager N75 said it was ‘pivotal to providing a full intelligence picture. Especially when analysing the harm caused by organised crime groups’. DOI N14 said it was ‘essential to have support from the public in identifying observation points, CHIS, intelligence gathering and prevention of those joining gangs’. Manager N24 agreed with that sentiment.

DOI N110 felt that more should be done to develop the institution’s external relationships. They said:

All too often we fail to engage with our diverse communities – many of whom do not have English as a first or second language. There is still much to be done in being more creative and innovative. The processes we employ tend to be well used, and mildly successful but limited.

Respondents said that there was greater tension between police and partners than between police and communities (Managers N10 and N24, officer N23). That perhaps reinforces the view (expressed for example by Noaks, 2008; and Gilling, 2002) that the challenges of working with communities, that may have very different expectations of police, or between agencies that may share a vision but have very different working practices, structures and cultures, should not be underestimated. Manager N75 said that effective communication/ relationship-building was a key element in the work of intelligence staff but highlighted that relationships in the intelligence milieu could be complicated by the need to protect sensitive intelligence. DOI N110 said that as things stood, ‘processes and protocols inhibited, rather than encouraged the free flow of information’.

Applying the interactive/ isolationist continuum

Borrowed from the field of ecological studies, the concept of the interactive/ isolationist continuum gave us new ways of thinking about long-recognised, intractable problems in that work. The linking of complexity with interdisciplinary research is no coincidence. Multi-faceted problems appear different when viewed from different angles. Practitioners, naturally, see their problems in instrumental terms; to be resolved with more training, more technology. Managers see them, fundamentally, as issues of resources, logistics, leadership and so on (the kinds of management and command phenomena with which they typically are most comfortable). The failure, substantially, to resolve these issues demands consideration of new approaches that draw on a wider range of insights.

Reconceptualized for the intelligence milieu, our clines describe a drift from interactivity to isolationism, the relative ‘riskiness’ of the behaviour described and the extent to which that behaviour represents a consolidation of traditional practice or a shift towards creativity and innovation. In the context of the ‘need to know’ vs. ‘dare to share’ debate, we posit that the former is more closely related to isolationism, which we characterize as carrying low risk for the organisation; at least

superficially. The latter is more obviously, a driver for interactivity, which may carry higher risk (of, for example, data being shared inappropriately) but promises higher reward. We conceive of concepts such as partnership, connectedness, and reciprocity as being close to the interactive pole while protectionism, monopolization, and bounded knowledge are closer to the isolationist pole.

Constructing meaning

Our findings suggest that intelligence staffs are suffering something of an identity crisis. Identity crises usually arise in periods of confusion and uncertainty. They often follow changes in societal expectations. Our findings suggest that the essence of that phenomenon in this context is best captured in the long running debate over need to know and dare to share but the dispute over the status of the work as a frontline, a back office; a support or an operational function also is germane. The attraction of strict adherence to need to know in a professional environment may be obvious (see for example Heaton, 2011) but we argue that in that paradigm, expert knowledge inevitably is bounded and opportunities for interaction and partnership are limited. Of course, greater interactivity carries risks; information may be shared unlawfully or inappropriately but as Bichard, 2004 and Zelikow, 2011 found, failing to share can carry just as many risks.

Given that intelligence practice is so often associated with failure (see Betts, 1978: Dahl, 2013; ISC, 2014), this research represented an opportunity for practitioners to redress the balance; to present their work in a more positive light. However, they were reticent about doing so (only four of 110 respondents were willing to share a ‘good news’ story). That reticence may be the product of cultural conditioning (another dimension of the need to know vs. dare to share debate) or it may simply be a manifestation of the police’s natural tendency to conceal covert methodologies. Either way, we view it as further evidence of the isolationism of the intelligence world, which largely operates in what two of our respondents described as ‘an air of mystery’.

Reciprocity is the practice of exchanging things with others for mutual benefit. In this context, we infer that largely is the exchange of information and services. We recognise that intelligence staffs routinely share both with other law enforcement agencies and other partners. Naturally, the need to know paradigm dominates those exchanges; we recognise that operational security is a significant concern but – given respondents concerns about the quality of their training – we do wonder if that dynamic is understood well enough by practitioners. Arguably, the value of reciprocity is better appreciated by individuals; many of whom have proved adept at building their own, often cross-cultural, communication networks and partnerships (Safjański, 2013 and Den Boer, 2015). For them, national boundaries are no barrier to such exchanges but a negative dimension of that behaviour is that knowledge is shared only with other insiders and rarely lands in those central contact points where it can be analysed and evaluated more formally. Consequently, behaviour that on the face of it appears to demonstrate a degree of interactivity also may be understood as more

evidence of isolationism.

Conclusions

We critically examined police intelligence staffs' views on their own practice, to better understand their relations with the wider law enforcement community. We learned that intelligence practice is complex and multi-faceted. For all the emphasis the institution has put on models, structures, and processes in modernity it is fundamentally human activity - the interaction of individuals with each other, with operating processes and with management systems. Those interactions are influenced *inter alia* by political, organizational, and social norms and by institutional cultures.

We found that the intelligence environment remains a closed; to many, a mysterious, world. We found little evidence that the concept of 'need to know' was any less entrenched in the psyches of police intelligence staffs than it ever has been. We posit that isolationism, of which need to know is emblematic, limits the influence and reach of the intelligence milieu. Moreover, that it disincentivises the kinds of partnership, reciprocity and multi-directional knowledge transfer consistent with the partnership and multi-agency working that the institution wants. To continue to hold a monopoly on relevant knowledge or to rely only on the knowledge it creates for itself, is incompatible with those aims.

We wonder how significant the lack of training is in the persistence of 'need to know' as the standard operating model for information sharing. It can only be speculation, but as we suggest in Figure 1, on one level it may be perceived as the least risky option for an organisation which puts untrained and/or inexperienced staff into its intelligence units. To do otherwise; the institution would need expert staff that understand relevant law, the operating environment, and above all how to assess and manage risk, to a level above that which currently may be the norm.

We present the interactivity/isolationism continuum as a medium for understanding the information management dynamic. We eschew any suggestion that there are simple solutions to complex problems. The continuum is no more than a construct; potentially a useful heuristic. We make no claim for it beyond that. We recommend it to practitioners and researchers who share our commitment to transparency and accountability, to help them find new ways to think about the intelligence operating environment in policing. It is understood that the police institution rarely can solve policing problems on its own. Notwithstanding oft-cited, and no doubt well-founded concerns about operational security, we believe that further reflection on the utility of 'need to know' is both desirable and necessary. Our research suggests that secrecy and 'need to know' invariably can be rationalized but we argue that they can be self-defeating, isolationist phenomena that may subtly undermine intelligence staffs' efforts to persuade those outside the intelligence bubble that they can offer credible solutions to policing problems.

Commonly, promoting interactivity generates creativity and new insights into old problems. Transparent connectedness encourages contributions from a wide range of disciplines. Ultimately, we hope that these will deliver more comprehensive but also more nuanced understandings of the milieu that in time will translate into organizational reforms, that deliver models more suitable for today's market conditions. After 40 years of reviews, inquiries, and sub-optimal reforms, it surely is worth looking at the problem of intelligence from a different perspective, one perhaps that takes a different road to the one already so well-travelled.

References :

- ACPO (1975). *Report of ACPO Sub-Committee on Intelligence (The Baumber Review)*. London: ACPO.
- ACPO (1986). *Report of the ACPO Working Party on Operational Intelligence (The Ratcliffe Review)*. London: ACPO.
- Amey, P; Hale, C; and Uglow, S (1996). *Development and Evaluation of a Crime Management Model*. London: Home Office Police Research Group.
- Banton, M (1964). *The policeman in the community*. London: Tavistock.
- Best, R (2011). *Intelligence Information: Need-to-Know vs. Need-to-Share*. US Congressional Research Service, 7-5700 www.crs.gov R41848.
- Betts, RK (1978). Analysis, war, and decision: Why intelligence failures are inevitable. *World Politics*, 31(01), pp.61-89.
- Bichard, M (2004). *The Bichard Inquiry Report*. London: HMSO.
- Blanckenhorn, WU and Demont, M (2004). Bergmann and converse Bergmann latitudinal clines in arthropods: Two ends of a continuum? *Integrative and Comparative Biology*, 44, pp.413-24.
- Cope, N (2004). Intelligence Led Policing or Policing Led Intelligence? Integrating Volume Crime Analysis into Policing. *Br J Criminol* (2004) 44 (2), pp.188-203.
- Crawford, A. (2008). Plural policing in the UK: Policing beyond the police. T. Newburn (Ed.) *Handbook of policing*. Willan: Cullompton, p.147.
- Dahl, E. J. (2013). *Intelligence and surprise attack: Failure and success from Pearl Harbor to 9/11 and beyond*. Washington, DC: Georgetown University Press.
- Den Boer, M (2015). Counter-Terrorism, Security and Intelligence in the EU: Governance Challenges for Collection, Exchange and Analysis, *Intelligence and National Security*, 30:2-3, pp.402-419.
- Flood, B (2003). Strategic aspects of the UK National Intelligence Model in J. Ratcliffe (Ed.), *Strategic Thinking in Criminal Intelligence*. Leichardt NSW: Federation Press, pp.37-51.
- Gill, P (1998). Making sense of police intelligence: A cybernetic model in analysing information and power in police intelligence processes. *Policing and Society*: 46 8(3): pp.289-314.
- Gilling, D (2005). Partnership and Crime Prevention in N. Tilley (Ed) *Handbook of Crime Prevention and Community Safety*. Cullompton: Willan, pp.734-56.
- Greenaway, K (1999). *Are the police now using their intelligence?* Unpublished BSc dissertation. Institute of Police and Criminological Studies, University of Portsmouth.
- Grieve, J (2004). Developments in UK criminal intelligence in J. Ratcliffe (ed.) *Strategic Thinking in Criminal Intelligence* (Annandale NSW: Federation Press), pp.25-36.
- Heaton, R (2011). We Could Be Criticized! Policing and Risk Aversion. *Policing* (2011) 5(1) pp.75-86.

HMIC (1997). *Policing with Intelligence: Criminal Intelligence, HMIC Thematic Inspection Report on Good Practice*. London: HMIC.

ISC - Intelligence and Security Committee of Parliament (2014). *Report on the intelligence relating to the murder of Fusilier Lee Rigby*. London: UK HMSO.

Joseph, J and Corkill, J (2011). Information evaluation: how one group of intelligence analysts go about the task. *Proceedings of the Australian Security and Intelligence Conference 2011*, pp.97-103.

Noaks, L (2008). Private and public policing in the UK: a citizen perspective on partnership. *Policing & Society*, 18(2), pp.156-68.

Park, RE and Burgess EW (1921). *Introduction to the Science of Sociology*. Chicago, IL: University of Chicago Press.

Poulin, R and Luque, J (2003). A general test of the interactive-isolationist continuum in gastrointestinal parasite communities of fish. *International Journal for Parasitology* 67 DOI: 10.1016/j.ijpara.2003.09.005.

Phythian, M (Ed.) (2015). *Understanding the intelligence cycle*. Abingdon: Routledge.

Ratcliffe, J (2008). *Intelligence-Led Policing*. Cullompton: Willan.

Reuss-Ianni, E (1983). *Two Cultures of Policing*. New Brunswick, NJ: Transaction Books.

Rollington, A (2013). *Strategic Intelligence for the 21st Century: The Mosaic Method*. Oxford: OUP.

Safjański, T (2013). Barriers to the Operational Effectiveness of Europol. *Internal Security*, January–June 2013 Vol. 5 Issue 1, pp.53-69.

Skolnick, JH (1997). Sketch of the Policeman's Working Personality in GF. Cole and MG. Gertz, (Eds.) *Criminal Justice System: Politics and Policies*, Seventh Edition, pp.116-33.

Stock, TM and JC Holmes (1988). Functional relationships and microhabitat distributions of enteric helminths of grebes (Podicipedidae): The evidence for interactive communities. *Journal of Parasitology* 74 pp.214–27.

Treverton and Hebbard (2008). *Assessing the Tradecraft of Intelligence Analysis*. Santa Monica, CA: RAND.

UNODC (2006). *Police Intelligence and Information Systems*. Vienna: UNODC.

White, SO (1972). A perspective on police professionalism. *Law and Society Review*, Vol. 7, pp.61-85.

Wilmer M (1970). *Crime and Information Theory*. Edinburgh: Edinburgh University Press.