The importance of context and cognitive agency in developing police knowledge: going beyond the police science discourse

Abstract

This paper argues the current exposition of police knowledge through the discourses of police science and evidenced based policing (EBP) leads to exaggerated claims about what is, and can be, known in policing. This new orthodoxy underestimates the challenges of applying knowledge within culturally-mediated police practice. The paper draws upon virtue epistemology highlighting the role cognitive agency plays in establishing knowledge claims. We challenge the assumption that it is possible to derive what works in all instances of certain aspects of policing and suggest it would be more apt to speak about what worked within a specific police context.

Key words: Evidence based policing; virtue epistemology; police science; what works in policing

Introduction

The idea that knowledge can play an important role in shaping police practice has enjoyed much popularity in recent years. Whilst disagreements remain about the direction we should be taking, an emerging orthodoxy is being established within the police professional world through the language of evidenced based policing (EBP), with its underpinning ontological and epistemological assumptions (Bristow, Carter & Martin, 2015). It is important to stress at the outset that this paper should not be viewed as 'anti-police science' or against EBP. Indeed, EBP represents an acknowledgment of the importance of knowledge within policing that is arguably overdue (Weisburd and Neyroud, 2011; Sherman, 2011; Fyfe and Wilson, 2012). The degree to which epistemic authority is being established within policing through the police science discourse and the promotion of EBP is a welcomed development (Wood and Bryant, 2015). EBP is playing an important role in challenging the relative rigidity of the police hierarchy and the corresponding de facto authority linked to the rank structure. The increasing application of EBP methods are also undermining a traditional reticence towards academic research within practical policing circles. Further, EBP has helped to empower leaders within the police hierarchy over recent years in taking the idea of police knowledge forward and its importance has been articulated in various reports (Flanagan 2008; Neyroud 2011; Winsor 2012; IPC 2013). Indeed, establishing the College of Policing (CoP) as an independent professional policing body, which was a central component of the UK Coalition Government's transformation of the policing architecture, would have been unlikely without the supporting police science discourse and promotion of EBP. Irrespective of what has, or has not, been achieved in practice following the introduction of the CoP, the idea that knowledge is important within policing has become widely accepted. We should not underestimate the significance of this development, nor the role played by EBP in bringing this about.

However, there is a concern that the advent of EBP has focused the police knowledge debate within rather narrow parameters of a police science discourse, which restricts knowledge claims to specific methods of enquiry (Bullock & Tilley, 2009; Morrell & Learmonth, 2015). In particular, the importance of the randomised control trial (RCT) has risen dramatically within the academic policing world in a way that appears to be diminishing the importance of other approaches to developing police knowledge (Bristow, et al 2015). Whilst this is not necessarily the intention of advocates of EBP (Sherman, 1998; Neyroud and Weisburd, 2014), we need to stress the extent to which the embedding of research into policing is still very much in its infancy. There is therefore a danger of research findings being understood and interpreted in rather narrow ways, especially given the highly pragmatic nature of policing and the pressures on police to be efficient, and/or effective. We argue that this is giving rise to the perception that EBP represents an orthodoxy within police research, which is consequently seen in terms of the discovery of statistically significant differences between control and intervention groups, with the intention of applying such findings from one specific instance more generally. Qualitative researchers are beginning to express feelings of being undervalued, as they well might do, alongside police historians and those favouring a normative approach to police research.

Context is everything

This paper seeks to question aspects of the police science discourse by highlighting two important factors that we argue have been given insufficient attention. The first of these factors is that policing, like other social interactions, is so context dependent, with a multitude of nuanced variables, that statistically based research will always need to be contextualised by the specifics of each policing circumstance (Greene, 2014; Heaton & Tong, 2016; Bristow, et al, 2015). This makes it difficult to justify claims with a high degree of certainty that a particular policing strategy worked in a particular context, if we are to understand 'worked' as the intended consequence of an activity; it makes it impossible to predict what works in every context. One RCT in isolation, like the proverbial lone swallow, can lead to exaggerated claims in the wrong hands. This is understood by advocates of EBP but this alone does not prevent the manipulation of research evidence within politically directed policy agendas. Moreover, the context varies so significantly over time and place, reflecting different social, economic, historical, cultural and political influences of both the past and present (Fyfe, 1992; Bottoms & Wiles, 1992). This makes it difficult to repeat RCTs in a manageable way against any constant, consistent criteria because of the ever changing and unpredictable nature of policing. Patrol policing operates in highly emotive circumstances, in which people are driven by rational, non-rational and irrational motivations (Waddington 1999). This also makes policing highly normative and what we see as working at one moment, might be deemed as failing in another. It might be possible to claim that a particular police policy worked in achieving a specific police objective, but if the policing objectives change, that particular policy is likely to become redundant.

There is no knowledge without knowing agents

The second factor that we wish to highlight is that in establishing what constitutes police knowledge we need to be mindful of developments in the study of knowledge, and in particular the insights emerging from the literature on virtue epistemology. Virtue epistemology places greater emphasis on the role the 'knower' plays in establishing knowledge claims (Kotzee 2013). Indeed, from this perspective, there is no knowledge in the abstract; it is always contextualised and given meaning through cognitive agents (Pritchard, 2013). This is of particular importance in policing, given the extent to which police officers are integral players in terms of putting police knowledge into practice. Much of the police science discourse pays too little attention to this aspect of knowledge. Consequently, it gives the impression that knowledge is something definitive, uncontested and abstracted from those creating and applying it in particular circumstances. Given the highly pragmatic characteristics of professional policing, this police science discourse implies that knowledge is simply advanced through the application of scientific methodologies that can be operationalised through appropriate policy and practice (e.g. see Neyroud and Weisburd, 2014). It is our contention that the development of police knowledge relies as much on embedding critical reflection within police practice as it does generalising the results of a single RCT. Police knowledge cannot be gained in the abstract. For knowledge to be established we require 'knowing agents', and within the specifics of policing this requires 'knowing police officers', especially if we wish the knowledge to be embedded and applied within professional practice. Police practitioners become the architects of police knowledge, working in collaboration with academics as appropriate (Fyfe & Wilson, 2012), and more importantly, such knowledge creation needs to be contextualised and particularistic, as opposed to establishing the kind of universal application implied by some of the police science literature.

The understanding of police knowledge we seek to develop in this paper emphasises context as an inevitable limitation to predictability. We therefore adopt an approach that requires us to provide meaningfully contextualised explanations regarding what did/didn't work as opposed to definitive statements of fact regarding what works. The approach we favour forces us to think about developing police knowledge through informed police decision making, as opposed to evidence-based policy. This understanding of police knowledge reasserts the centrality of police discretion as the embodiment of much professional police knowledge, and the means by which knowledgeable police practitioners engage in an ongoing, critically reflective practice.

Knowledge, knowing and culture
Research into policing is growing and there is also an increasing number of graduates in the police service (either at entry or gaining academic qualifications during service). These developments, alongside the creation of the College of Policing, demonstrate that police knowledge is no longer reliant exclusively on experience and 'craft', with no contribution from science. Instead, it is increasingly conceptualised as a combination of 'art', 'craft' and 'science' (Innes, 2010; Tong & Bowling, 2006; Tong, Horvath & Bryant 2009). We use the term science here in its broad sense to refer to a variety of perspectives and insights from academic research, and as such having an

important role to play in the development of research informed practitioners. However, as indicated in the introduction, this paper also articulates a concern that the discourse around police science is narrowing and becoming more focused around particular research agendas. This can lead to science being cast in opposition to art and craft based understandings of policing, which in turn can inadvertently reduce the likelihood of police practitioners becoming engaged with police science endeavours. We should not ignore Innes (2010: 32) when he points out that 'what counts as effective policing is more 'art' or 'craft' than 'science''. We also need to take heed of the findings from Hallenberg & Cockcroft (2016), which demonstrates that organisational resistance to officers who graduated with in-service degrees and narrowly defined perspectives on what counts as evidence can hinder development of police knowledge and its application to practice. The effectiveness of attempts to develop police knowledge are much more reliant on having practitioners critically engaged with their work, with the ability to apply professional discretion, than we currently acknowledge.

We say more below on what constitutes police knowledge, and the central importance of engaging police officers in the generation of this knowledge. At this point though, we wish to explore how knowledge generated through academia is received within policing. We suggest that any attempt to explore issues of 'knowing' and 'knowledge' in a police context inevitably requires an appreciation of the role that culture plays in shaping understanding of what might be broadly termed the police social world. This is for two key reasons. At the general level it is probably appropriate to suggest that culture influences or permeates, in some way, most elements of policing. This versatility of application in itself is probably an artefact of the broadness of the conceptual definition of police culture. At a deeper level, however, it is true to say that culture is built on, or from, knowledge. Indeed, Schein's (2004) assertion that culture is manifest at three different levels (Artifact, Espoused Value and Basic Underlying Assumption) suggests that knowledge is instrumental in driving assumptions and the values that derive from them. More explicitly, Sackmann (1991) sees shared knowledge as fundamental to the collective cognition that constitutes culture.

It should be noted from this that 'knowledge' and 'knowing' raise cultural questions and issues above and beyond those of simply understanding the frameworks that determine shared assumptions and values in the police institution. Whilst 'knowledge' and 'knowing' may be fundamental facets of the police occupational culture, the culture itself can help us to understand the ways in which 'knowledge' and 'knowing' become culturally constructed to represent factionalised interests within the criminal justice communities. Indeed, the professionalisation agenda within the context of UK policing has increasingly led to policy debates regarding the nature of police 'knowledge'. This is demonstrated by the growing influence of EBP as the prime articulation of what constitutes police knowledge in the UK today. At the same time, the professionalization agenda also establishes the best means by which to develop 'knowing'. This can be seen, for example, in the College of Policing consultation on a Policing Education Qualifications Framework.

Reaching consensus over what constitutes 'knowledge' and 'knowing' is demanding. Defining the boundaries between culture and knowledge remains difficult, and clarity is further hindered through the inevitably politicised contexts, which provide the backdrop for such debates. The challenge here is to some degree a cultural one. To illustrate this, the paper will draw on two examples, taken from the literature on police culture, that highlight cultural divisions between what constitutes 'knowing' and 'knowledge'. The first pertains to a cultural schism between policing and academia whilst the second shows that internal cultural divisions within police organisations also exist.

Policing / academia relationships within the production of police knowledge
The relationship between policing and academia has assumed different forms at different times. It is best thought of as a cluster of mutable relationships, rather than an unchanging singular relationship. There are also different motivations at play when the police service engages academia in the development of police knowledge. Innes (2010: 13), for example, draws a distinction between police research using the metaphors of a 'motor', where research is intended and/or interpreted for purposes of reform, development and improvement, or a 'mirror', where research is intended and/or interpreted to reflect the complex realities of extant policing practice. Innes (2010) also notes that the relationships between policing and academia can produce research by, on, for and with the police[1].

Knowledge has historically meant different things within the worlds of policing and academia. However, this is undoubtedly showing signs of change. Much progress has been made since the late 20th century, when Fielding (1988, p.24) described how one member of a police recruitment panel declared of university graduates that he, '...wouldn't touch them with a disinfected barge pole'. At about the same period in history, Punch (2007, p.110) suggested that "to be educated was to be deviant" in the eyes of the police. It is in terms of the development of collaborative partnerships between police and academic institutions where this change in how knowledge is

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[1] Innes (2010:14) observes that 'ideas' in policing tend to fall into one of two groups:

> First, there are those that have had a 'wide and deep' influence on the study of policing. Akin to axiomatic statements, these are fundamental truths that, although not always obvious, exhibit a persistent and ongoing influence, subtly configuring the perspectives and understandings developed in relation to a particular subject. The precise content of such ideas is frequently reconfigured and reworked across different contexts, but the ideas are significant because they provide cross-cutting intellectual scaffolding that extends across specific topics. Second, and in contrast, there is a greater number of more narrowly and locally influential ideas that are more domain-specific, moulding understanding of specific aspects of policing

perceived has been most visible. It can be argued, however, that, whilst there has been a genuine will to work collaboratively, the cultural values that underpin each erstwhile partner represent different ways of viewing the world. Canter (2004: p.4), for example, argued that '[p]erhaps the most fundamental distinction between the police and the academic communities is what they regard as knowledge' and whilst he is referring specifically to scientific culture and its relationship to police investigation, parallels with academia and policing in more general terms are clear. This might be considered a fundamental issue and one that cannot be shielded by superficial synergies allowed by the emergence of the disciplines of criminology, criminal justice and policing studies whose titles suggest a joint enterprise between both sectors. This schism between the 'police' and the 'academy' is largely driven, according to Canter (2004), by factors pertaining to the importance of the law (and its application) to the police. This, in part, drives one of the key elements of the police view of knowledge which tends to portray it as inherently connected to ends rather than means. In this respect the concept of 'evidence' supplants that of 'hypothesis'. The meaning constructed through information (for example, from analysing raw data) is established and evaluated through the binary as constituting evidence or not. The academic ideal establishes that data comes in shades of reliability and knowledge is derived through trial and error. To the police, there has been traditionally less appetite for evidence that comes with caveats or conditions, or for knowledge that needs a number of 'test runs' to prove its credentials.

Of importance to Canter (2004, pp. 3-4), therefore, is the fact that, 'fundamental differences in thought processes, typical modes of action and the central objectives that shape the institutions in which these cultures thrive' lead to, and are informed by, essentially different paradigms of 'knowing' and 'knowledge'. Whilst these specific paradigms undoubtedly hold utility for the respective partners, discrepancies between institutional paradigms only become visible as partnership and cross working practices develop as a response to organisational needs.

In many ways there is a growing convergence between the spheres of policing and academia and a consequent narrowing of the cultural divide between both worlds. The importance of police knowledge has continued to be advanced within police institutions, and the police are becoming much more attuned to the subtleties and nuances of academic understandings of knowledge. However, policing by necessity remains highly pragmatic, and many police practitioners arguably lack the motivation, desire and indeed (for some at least) the experience to engage with the inherent difficulties of establishing knowledge or to operate within a world of complexity, as opposed to one in which things can be easily categorised.

The narrowing of the cultural divide between academia and the police is also a consequence of the retreat within academia away from the nineteenth and twentieth century liberal ideals that gave shape to the modern university. Indeed, as McIntyre (2013, p.360) notes, the liberal university idealised by Cardinal Newman in the mid-nineteenth century was in part a response to criticisms of academia at that time. These criticisms included both the utilitarian dismissal of the education provided by Oxford and Cambridge as irrelevant 'to the 19th Century socio-economic world', and

the secularist calls at that time to have religion removed from the classroom. McIntyre (2013) presents this aspect of Newman's idea of the university as evidence of an ongoing crisis in liberal education and the ideals characterised within academic culture. He notes at the same time the contemporary challenges to academia from 'vocationalisation' and 'politicisation' (McIntyre 2013, p.360). Both vocationalisation, understood as the subordination of liberal educational values to ones that meet economic needs, and politicisation, which sees the role of education to be producing an idealised citizenry, represent a retreat away from academic values. They establish instrumental values as the driving force within universities, which in turn brings them much closer to the professional occupational worlds of institutions such as policing. The 'ivory tower' representation of the university is becoming increasingly difficult to sustain. Consequently, the cultural shaping of knowledge in universities falls more into line with those created in professional contexts, such as policing.

Developing police knowledge within the contexts of police practice
Police knowledge is not only shaped by the evolving relationships between academic and policing partners, but also by continuities and changes within police institutions. Culturally driven readings of 'knowing' and 'knowledge' do not create challenges just in terms of inter-institutional issues, but also in terms of discrepancies in what constitutes a shared understanding of knowledge (Fyfe, 2013).

Within the police culture literature, intra-institutional discrepancies have asserted themselves in the culturally driven divide between experiential knowledge and understanding acquired through more formal means. The following extract, taken from Van Maanen's seminal 1978 piece 'Observations on the making of policemen', amply illustrates this issue;

> Through the eyes of his experienced FTO [Field Training Officer], the recruit learns the ins and outs of the police role. Here he learns what kinds of behaviour are appropriate and expected of a patrolman within his social setting...This traditional feature of police work - patrolmen training patrolmen - ensures continuity from class to class of police officers regardless of the content of the academy instruction. In large measure, the flow of influence from one generation to another accounts for the remarkable stability of the pattern of police behavior (pp. 299-300)

The tension between formal/legal knowledge and that derived from experience mirrors in part the ambiguities inherent in the police role, not least the application of legal rigidity to the vagaries of human nature. It is well documented that police practitioners experience challenges in knowing how to apply the law to the world in which they work (and, as LaFave (1962) noted, knowing how not to apply it). This application (or non-application) of law to reality also has potentially far-reaching consequences. Indeed, Brogden (1982) described judicial function as being undermined by the use of police discretion.

Police discretion has often been characterised not as the embodiment of professional judgement, but rather as the negation of, or in opposition to, 'professional' policing. Such a characterisation posits legal knowledge as the formal basis upon which professionalism in policing is founded. Police discretion, on the other hand, is presented as an informal means of 'getting the job done' with little or no consideration of a professional ethos. So, on the one hand it is broadly acknowledged that 'Police knowledge is contextual and subjective' (Cope, 2004, p.202), and that such knowledge informs discretionary decision-making, but on the other hand the apparent 'informality' of police discretion sits uncomfortably with public expectation of a disciplined, professional and equitable application of what should be the universality of law.

Traditionally the legalistic approach to police professionalisation only served to highlight, rather than resolve, the issue at hand given the circular nature of the problem. The police, institutionally, are seen to be guided by goals that are in turn driven by legal precepts and concepts. Ostensibly, there is a sense of fit here. However, in reality, the legal and procedural aspects of police training, whilst providing a sense of obligation and purpose, fail to fully equip the police officer for the realities of policing. As Van Maanen notes, formal knowledge is unhelpful without the 'learning of complacency' (1978, p. 305), through which officers discover how, and how not, to apply their learning. Discretionary application of the law remains a fundamental and necessary policing skill, but it also remains an aspect of police work that is not easily accommodated within a policy driven approach to policing, which is increasingly perceived to be what is needed in order to reassure a more demanding public with ever greater democratic sensibilities (Wood, 2016).

Within the contemporary debate about police professionalism, the application of science replaces the application of law as the corrective to the perceived pathology of police discretion. Whilst the limitations of understanding police knowledge as nothing more than the application of the law is well established (Marshall 1978; Lustgarten 1986; Walker 2000; Stenning, 2011), there continues to be a view that police discretion is an unreliable base upon which to build an understanding of police professionalism. Police discretion continues to be seen in problematic terms as an obstacle to professional police practice. The focus today, however, is on establishing evidence-based policies that demand complete adherence from police officers. This can be seen within the literature promoting EBP, the idea of police science, and even within the procedural justice literature. All favour strong policy directives over officer discretion, the latter seen as an obstacle to policy adherence in the same way as it was formally perceived as a distraction from applying the law. This is the contextual setting within which contemporary calls are made for the police to adhere to tenets of occupational professionalisation. Moreover, the focus today on science as the basis of police professionalism leads to what Punch (2007) identifies as the need to certificate accepted knowledge through higher education. The externality of academic credibility is seen to provide an aura of respectability and professionalisation to police work. Moreover, given the financial pressures on universities, and greater external demands placed upon them to be more

relevant and more responsive to professional needs, universities are more than willing to oblige in supporting this process.

Taken together, these examples of inter- and intra- cultural difference show how 'knowing' and 'knowledge', concepts that are inherently fraught with nuance, become even more complex when applied to a policing context. In terms of understanding how police organisations 'relate' to external partners it is evident that different occupational groups may have very different understandings of key definitions. Crucially, such distinctions need to be seen as driven by the core aims and processes of particular institutions and then supported by associated cultures. These distinctions might be narrowing, but nonetheless retain an important contextual setting. Internally within the police institutions, divisions remain as to what constitutes 'knowing' and 'knowledge'. The debate over whether police officers need a degree illustrates the extent to which knowledge remains contentious within policing (Foster, 1999; Fyfe, 2013). At the same time, these issues are of interest to the wider public, who may wish to see such policing founded upon formal rather than cultural knowledge, however difficult the former is to identify, qualify and deliver.

EBP, police science and police knowledge
So far we have argued that there is in general a strong symbiotic relationship between police culture and police knowledge. This relationship emphasises the importance of context in shaping police knowledge. However, within current debates around police professionalization in the UK the dominating interpretation of police knowledge is EBP, shaped by epistemological assumptions and a police science discourse favouring scientifically tested informed policy directives. In this part of the paper we begin to question the assumptions informing EBP and the police science discourse, in particular by challenging the language used to promote ideas of police knowledge. In contrast, we draw upon alternative approaches to knowledge and consider different ways in which police knowledge can be advanced through approaches that currently fall outside of what is considered acceptable.

We noted at the outset the important contribution made by advocates of EBP to the police professionalization debate. There are nonetheless concerns with the way in which police knowledge is being presented within the EBP orthodoxy, and in particular, the degree to which epistemic authority in policing appears to be restricted to a specific articulation of police science. These concerns are acknowledged, and responded to, in Neyroud and Weisburd's (2014) editorial piece, in which they defend and expand upon the idea of police science articulated in an earlier paper (Weisburd and Neyroud 2011). Their 2011 paper acknowledges significant advances in policing over the previous 20-year period and the role played by academics working alongside police in helping to make these advances happen. However, at the same time, they argue that there remains a 'disconnect between science and policing' (Weisburd and Neyroud, 2011, p.2). They seek to redress this disconnect in both the 2011 and 2014 papers, with an emphasis on the need for the police to own the science that guides and underpins progress in police practice.

Neyroud and Weisburd (2014, p.289) use the term ownership to mean, 'the police should become one of the key players in police science'. Clearly, being one of the key players does not necessitate in itself ownership. At most, it should mean co-ownership alongside other key players, and Neyoud and Weisburd (2014) note this in their concluding remarks. Moreover, Neyroud and Weisburd (2014) are using ownership as a means to an end by using it to encourage the police to take more responsibility for developing and disseminating police knowledge than is currently the case. They see raising the question of ownership as a means of forcing the police to acknowledge, and be more committed to, 'the scientific enterprise and its values' (Neyroud and Weisburd 2014, p.290). They also see the potential here to revisit the relationships between policing and academia, with a need to ensure that police 'become knowledgeable about science and its procedures' (p.292).

In one respect, we need to appreciate and acknowledge the extent to which Neyroud and Weisburd (2014) are addressing the kind of cultural issues we have referred to earlier in this paper. They are attempting to overcome cultural resistance from within both academic and police worlds. However, whilst sympathetic to much of what Neyroud and Weisburd (2014) intend here, the language they use is not always helpful. The term 'ownership', for example, implies a high degree of political control in determining what constitutes knowledge. Whilst this might reflect realities within academia in terms of who and what gets funded, there is a degree of acceptance of this in Neyroud and Weisburd's (2014) presentation that diminishes the academic ideal of knowledge. This ideal is perhaps always compromised in practice, but it remains nonetheless as a guard against an overly politicised understanding of knowledge, and a reminder of the virtue of knowledge in and of itself. In the already highly controlled context of policing, where Government has a clear political agenda in terms of establishing the parameters of 'what works', ownership of knowledge will inevitably be unnecessarily restrictive. This can be seen already by the extent to which the current debate about police knowledge in the UK is dominated by questions of methodological orthodoxy.

Against method; in favour of cognitive agency
If knowledge is to have the kind of liberating and transformational potential envisioned by Neyroud and Weisburd (2014) we might be better turning to Paul Feyerabend for inspiration rather than imposing in advance a rigid structure of ownership. Feyerabend's (1975) Against Method is particularly relevant in the current climate of police research, which appears to have a rather unhealthy fixation on the pros and cons of RCTs. Feyerabend (1975) challenges what he sees 'as the 'myth' of methodological monism' (Kidd 2013, p.413) within the history of science, and his 'epistemic pluralism' draws upon John Stuart Mill's conclusions in On Liberty (Mill 1859) that human imperfection requires a modus vivendi, which needs to be recognised within the philosophy of science and philosophy of education (Kidd 2013, p.410). Feyerabend (1975) reasserts liberal ideals of knowledge, as opposed to what McIntrye (2013, p.345) sees as 'servile' notions of knowledge. As part of this endeavour, Feyerabend (2001; 2011) continues to challenge the privileging of science over other forms of knowing, and in particular, the extent to which science

as an institution may frustrate and restrict the educational development and potential of individuals (Kidd 2013, p.419).

Similarly, the primary title of Neyroud and Weisburd's (2014) paper, 'Transforming the Police Through Science*'*, does little to convey the importance of agency in bringing about the change the authors desire. It appears to ignore significant developments within epistemology over recent decades. In particular, the emergence of virtue epistemology as 'arguably the dominant viewpoint in contemporary epistemology' (Pritchard 2013, p.236), has had a significant impact on how we think about knowledge claims. Most importantly, virtue epistemology asks, 'not so much what knowledge is' but rather 'what it is to be a good knower' (Kotzee 2013, p.157). The subject's 'cognitive agency' becomes the critical factor here (Pritchard 2013, p.237), which in turn adds a significant normative dimension to epistemological questions (MacAllister 2012). From the virtue epistemological perspective, it is meaningless to speak about police knowledge without placing the 'intellectual qualities and habits' centre stage (MacAllister 2012, p.253).

Neyroud and Weisburd (2014, p.288) acknowledge that the conceptual presentation of science in their earlier paper 'could be read as too restrictive'. Moreover, they have sought to redress this in their own writing and also by inviting critics to offer broader conceptions of science by drawing upon a wider range of academic disciplines and applying them to policing. However, science continues here to be abstracted out of context and it is not at all clear how it can be made real and tangible within police organisations. Even when Neyroud and Weisburd (2014, p.287) talk about 'the embedding of science in the education and training of police officers', they seem to imply that 'science' is an uncontested set of truths that simply need to be ingested by police officers. The latter are presented as passive recipients. There is little recognition of what police officers bring with them or how they develop knowledge through their practice. However, drawing upon the insights of a virtue epistemological perspective (MacAllister 2012; Kotzee 2013; Pritchard 2013), we suggest that if policing is to be transformed through knowledge, it is much more likely to occur if, and where, there is a sizeable majority of knowing police officers that is both knowledgeable, but also capable of critical thinking. A central component of police knowledge has to be the intellectual development of officers themselves. Pritchard (2013, p.236) offers a 'continuum of cognitive agency', which presents 'understanding' rather than "knowledge" as 'the epistemic goal'. Wringe (2015, p.32) in a different but connected way supports 'transformative' learning over 'an additive conception of education'. What both share is a commitment to developing the cognitive abilities of the subject as opposed to a view of education that simply implies the transfer of uncontested knowledge claims and skills.

Concluding remarks
Police knowledge is in a relatively strong position. Academic interest in policing continues to grow and this is reflected by the growing number of academic policing programmes in universities and the wealth of policing publications. There is also a greater recognition of the importance of

knowledge within policing and this is reflected in the increasing number of police officers engaged in research projects, whether through bodies such as the Society for Evidence Based Policing or as part of a formal study programme at a university. The CoP is also fostering working relationships between universities and police services, and has adopted a much more forceful approach to promoting the idea that a police officer's authority is derived at least in part from his or her epistemic authority.

However, despite these advances we feel that there remains a problem in how police knowledge is conceived, as something external, abstracted from the contexts within which it is situated. The debate about police knowledge is framed almost exclusively within a police science discourse that is unnecessarily restrictive and exclusionary. It not only excludes valid contributions to what constitutes police knowledge but it also favours a policy driven approach to embedding and applying police knowledge in a way that diminishes officer discretion. For us this fails to capture what is required. We need to be much more cognisant of developments in virtue epistemology to appreciate the extent to which knowledge is dependent upon the cognitive abilities of knowing agents. Within policing this means greater emphasis needs to be placed on the role officers can play in developing, embedding and applying police knowledge in practice. This demands knowing officers: 'knowledgeable' yes, but also with emotional intelligence and an acute sense of context. Whilst it is laudable to emphasise the need for police officers to apply logic and scientific principles and values, we should not lose sight of the situations that constitute police practice. Police officers routinely operate in highly emotive and emotional contexts that involve other human beings, who are often vulnerable and/or volatile. Police deal with people who are driven by rational, irrational and non-rational motivations (Waddington 1999) and police knowledge needs to recognise this. Police knowledge has to be much more than simply allocating the appropriate science to a specific policing problem as implied by Neyroud and Weisburd (2014). Above all else police officers need to be reflective practitioners for example, developing through practice and learning an understanding of the strengths and weaknesses of intuition and mental heuristics as forms of reasoning. This demands that we see police discretion at the heart of debates concerning police knowledge.

It would undoubtedly be much easier if we were able to establish policies that work in all policing instances. However, it is misleading for us to assume that this is possible. The problem is not simply that we will fall short of what are very high expectations. The problem is more profound and more damaging. The more we rely upon evidence-based policies to direct what we do in policing, the more we institutionalise a level of complacency and a failure to address the specifics of each and every police encounter. Rather than just establishing what works through research, with a view to developing and enacting policies, we also need to become more attuned to understanding what worked in a given context, with a view to developing the abilities of officers to read situations and apply their discretion if needed. Most importantly, we need to start thinking about police knowledge in terms of what is known by cognitive agents, rather than establishing

abstract notions. We need to see police knowledge as it is expressed through informed policing decision makers within the specifics of a given context, rather than only through evidence-based policies that claim sovereignty over all policing instances.

References

Bottoms, A. E & Wiles, P. (1992). 'Explanations of Crime & Place'. In D. J Evans, N. R Fyfe & D. T Herbert (eds) Crime, Policing & Place, London: Routledge pp. 11-35.

Bristow. D, Carter. L & Martin. S. (2015). 'Using evidence to improve policy and practice: the UK What Works Centres.', Contemporary Social Science, **10**(2): 126–137.

Bullock, K & Tilley, N (2009). 'Evidence-Based Policing and Crime Reduction', Policing, **3**(4): 381–387.

Brogden, M. (1982). Autonomy and Consent. London: Academic Press.

Canter, D. (2004). 'A Tale of Two Cultures: A Comparison of the Cultures of the Police and Academia.' In Adlam, R. and Villiers, P. (eds), Policing a Safe, Just and Tolerant Society: An International Model. Winchester, UK: Waterside Press, pp. 109-121. http://eprints.hud.ac.uk/8195/ Accessed on 12th July 2016.

Cockcroft, T. (2012), Police Culture: Themes and Concepts, Abingdon: Routledge.

Cope, N. (2004). 'Intelligence Led Policing or Policing Led Intelligence?: Integrating Volume Crime Analysis into Policing.' British Journal of Criminology, **44**(2),:188-203.

Fielding, N. (1988). Joining Forces: Police Training, Socialization, and Occupational Competence. London: Routledge.
Feyerabend, P. (1975). Against Method: Outline of an Anarchistic Theory of Knowledge. London: New Left Books.

Feyerabend, P. (2001). Conquest of Abundance: A Tale of Abstraction versus the Richness of Being. Edited by B. Terpstra. Chicago: Chicago University Press.

Feyerabend, P. (2011).The Tyranny of Science. Edited by E. Oberheim. Cambridge: Polity.

Flanagan, Sir R. (2008). The Review of Policing. Final Report. London: Home Office.

Foster, J. (1999) 'Appendix 22: Memorandum by Dr Janet Foster, Institute of Criminology, University of Cambridge', in Home Affairs Committee, Police Training and Recruitment: Volume Two, London: The Stationery Office, pp. 382-391.

Fyfe, N. R (1992) 'Towards locally sensitive policing? Politics, participation and power in community/police consultation.' In D. J Evans, N. R Fyfe & D. T Herbert (eds) Crime, Policing & Place, London: Routledge, pp. 305-326.

Fyfe, N. R (2013) 'Complex transition and uncertain trajectories Reflections on recent developments in police professionalism', Journal of Workplace Learning, **25**(6):407-420.

Fyfe, N. R & Wilson, P (2012). 'Knowledge exchange and police practice: broadening and deepening the debate around researcher–practitioner collaborations.' Police Practice and Research, **13**(4).: 306–314.

Greene, J. R (2014). 'New Directions in Policing: Balancing Prediction and Meaning in Police Research.' Justice Quarterly, **31**(2):193-228. DOI: 10.1080/07418825.2013.840389

Hallenberg, K. and Cockcroft. T. (2016) 'Police Officer Experiences of Higher Education: Barriers/Drivers and Organisational Responses', Paper presented at the American Society of Criminology 72nd Annual Meeting, New Orleans, La. (Nov 2016)

Heaton. R & Tong, S (2016) 'Evidence-Based Policing: From Effectiveness to Cost-Effectiveness' in Policing: A Journal for Policy and Practice, Volume 10   Issue 1   March 2016, pp. 60-70

Innes, M. (2010). 'The Art, Craft and Science of Policing.' In P. Cane & H. M Kritzer (eds) The Handbook of Empirical Legal Research, Oxford: Oxford University Press, pp. 11-36.

IPC (2013) Policing for a Better Britain. Report of the Independent Police Commission. Published by The Lord Stevens of Kirkwhelpington QPM.

Kidd, I.J. (2013) 'Feyerabend on Science and Education.', Journal of Philosophy of Education, **47**(3): 407-422.

Kotzee, B. (2013) 'Introduction: Education, Social Epistemology and Virtue Epistemology', in Journal of Philosophy of Education, **47**(2): 157-167.

LaFave, W.R. (1962). 'Police and nonenforcement of the law - part II', The Wisconsin Law Review, p.179.

Lustgarten, L. (1986). The Governance of Police. London: Sweet & Maxwell.

MacAllister, J. (2012). 'Virtue Epistemology and the Philosophy of Education', in Journal of Philosophy of Education, 46(2): 251-270.

McIntyre, K.B. (2013). 'Liberal Education and the Teleological Question; or Why Should a Dentist Read Chaucer?', in Journal of Philosophy of Education, **47**(3):341-363.

Marshall, G. (1978). 'Police Accountability Revisited'. In D. Butler & A. Halsey (Eds.). Policy and Politics. London: Macmillan. pp. 51-65.

Mill, J.S. (1859). On Liberty. In the 1973 edition of The Utilitarians. New York: Anchor Press: pp.473-600.

Morrell. K & Learmonth. M (2015) 'Against Evidence-Based Management for Management Learning', Academy of Management Learning & Education, 2015, **14**(4): 520–533

Neyroud, P. (2011). Review of Police Leadership and Training. London: Home Office.

Neyroud, P. & Weisburd, D. (2014) 'Transforming the Police Through Science: The Challenge of Ownership', in Policing. A Journal of Policy and Practice. **8**(4) :287-293.

Pritchard, D. (2013) 'Epistemic Virtue and the Epistemology of Education', in Journal of Philosophy of Education, **47**(2):236-247.

Punch, M. (2007). 'Cops with Honours: University Education and Police Culture.' In M. O'Neill, M. Marks and A.Singh (eds), Police Occupational Culture: New Debates and Directions, New York: Elsevier, pp.105-128.

Sackmann, S. (1991). Cultural Knowledge in Organizations: Exploring the Collective Mind. London: Sage.

Schein, E. (2004). Organizational Culture and Leadership (3rd edition). San Francisco: Jossey- Bass.

Sherman, L. W. (1998). 'Evidence Based Policing', in Ideas in American Policing, July 1998. Washington DC. The Police Foundation

Sherman, L.W. (2011) Professional Policing and Liberal Democracy. The 2011 Benjamin Franklin Medal Lecture, Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA), London, 1st November 2011. Available as a pdf file online from (accessed 29/08/13): http://www.thersa.org/__data/assets/pdf_file/0005/563027/Lawrence-Sherman-Speech-text-01.11.11.pdf

Stenning, P.C. (2011) Governance of the Police: Independence, Accountability and Interference. Ray Whitrod Memorial Lecture. 6th October 2011 at Flinders University, Adelaide. Available on-line (accessed 29/08/13): http://www.justice.net.au/attachments/056_GovernanceOfPoliceWhitrodMemorialLecture2011.pdf

Tong, S & Bowling, B (2006) 'Art, Craft and Science of Detective Work', Police Journal, Volume 79, No 4, pp. 323-329.

Tong. S, Bryant. R & Hovarth. M (2009) Understanding Criminal Investigation, Chichester: Wiley & Sons Publication.

Van Maanen, J. (1978). 'Observations on the Making of Policemen.' In P.K. Manning and J. Van Maanen (eds), Policing: A View From the Street. Santa Monica: Goodyear, pp.292-308.

Waddington, P.A.J. (1999). Policing Citizens. London: UCL Press.

Walker, N. (2000). Policing in a Changing Constitutional Order. London: Sweet & Maxwell.

Weisburd, D. & Neyroud, P. (2011). Police Science: Toward a New Paradigm. Washington DC: National Institute of Justice.

Winsor, T. (2012) Independent Review of Police Officer and Staff Remuneration and Conditions Final Report – Volume 1 March 2012 Cm 8325-I. London: The Stationery Office

Wood, D.A. (2016) 'The importance of liberal values within policing: police and crime commissioners, police independence and the spectre of illiberal democracy', in Policing and Society: An International Journal of Research and Policy, Vol.26, No.2, pp.148-164

Wood, D.A. & Bryant, R.P. (2015) 'Researching Police Professionalism' in M. Brunger, S. Tong & D. Martin (Eds) Introduction to Policing Research. Taking lessons from practice. Abingdon: Routledge

Wringe, C. (2015) 'Beyond Useful Knowledge: Developing the Subjective Self', in Journal of Philosophy of Education, **49**(1):32-44.