Do graduate police officers make a difference to policing? Setting out the context and reviewing the empirical evidence

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This paper updates and extends a literature review by Paterson (2011) on the attributes said to be brought to policing by graduate officers compared to their non-graduate counterparts. A number of methodological shortcomings in the research as well as criticisms levelled at various bachelor degree courses means drawing definitive conclusions is problematic. Overall, it seems policing or criminal justice degrees confers no particular advantage rather it is the experience of university per se that is important. Whilst too early to say whether the present Police Education Qualification Framework (PEQF) devised by the U.K's College of Policing will yield beneficial outcomes, on balance the weight and direction of existing findings suggest more positive than negative associations with higher levels of education

Introduction

The progressive increasing of levels of education in policing training has, by and large, been part of a wider reform and modernisation agendas. (Miller and Fry, 1978; Chan, 1996; Punch, 2003; Loftus, 2008; Paynich, 2009). Yet Huey (2018) notes the dearth of systematic reviews on the efficacy of police training but failed in her attempt

to locate papers of sufficient rigour to undertake her own review. She concluded (p13) "without a solid evidence base, there is little we can say ...concerning the efficacy of existing models of training for sworn police officers." There is a similar problem with regards to assessing the value of graduate education in policing. An attempt to scope the evidence, described in the methodology section, elicited no systematic reviews and only one meta-analysis (Hayeslip, 1989), which included just five suitable studies. The aim of this paper is to provide an integrative review to contextualise, update and extend the narrative literature review undertaken by Paterson (2011). The major development since Paterson's paper has been the announcement by the U.K.'s College of Policing (2016) of its Police Education Qualifications Framework (PEQF). This framework establishes three different routes into bachelor (HE6) level degrees (pre-entry policing degree, apprenticeship degree and post graduate conversion) as the qualifying standard required to enter policing in England and Wales (College of Policing, 2016). Further it allows police officers and staff to gain academic recognition for existing skills and is thus currently engaging with Higher Education Institutions (HEIs) to allow accreditation of prior learning. The PEQF marks a radical shift toward degree entry qualifications, not only because it is mandatory rather than voluntary, but also its universal application which is not just targeted at a promising elite (Tong and Hallenberg, 2018).

This paper draws from the integrative review methodology (Whittemore and Knafl, 2005) pointing out potential confounding influences contributing to variability of research findings. Some context is provided about the debate around the attributes graduate level education is said to bring to in policing. A summary account is then given of papers from five decades of research in three policing jurisdictions. The overall conclusion is that the current body of research evidence is methodologically weak and there remains a gap in the literature for the provision of a convincing, unambiguous empirical case demonstrating the value added by graduates to policing.

Methodology

Given the dearth of robust primary studies as noted by Huey (2018) and Hayeslip, (1989) when attempting a systematic review and a meta-analysis respectively, this paper adopted an integrative review methodology. This represents the broadest type of

literature review especially when source literature is diverse, research designs are not identical and evidence is conflicting (Whittemore and Knafl, 2005). Amongst the requirements are to: document search sources; verify by consulting original papers; identify potential confounding factors; order and summarise themes; categorise direction of results; report in narrative and tabular forms. Following Paterson's (2011) review of the then available literature, the same electronic data bases were searched namely: Directory of Open access Journals; Emerald management Xtra, Informaworld; JSTOR, Sage Journals Online; Elsevier: Springerlink; Swetwise and Google Scholar. In addition, the author's academic library catalogue was searched using terms: police graduates; graduate education in policing; police and higher education; universities and policing. As in Paterson, additional papers were found by scanning article bibliographies. Papers were limited by language (English); country (Australia, UK and USA); time (1970-present) and focussed on empirical research. Omitted in this review are details of programmes or course objectives which are covered in the paper by Belur et al (this issue). Where possible original papers were consulted and ordered chronologically to allow systematic synthesis of any developments over time. Themes were then identified; the appendix presents a summarised table of study details. In order to address the problem of conflicting evidence, the strategy of vote counting was employed (i.e. the frequency of papers reporting positive, neutral or negative findings) as suggested by Whittemore and Knafl (2005) In addition, two potential confounding factors were identified.

Potential confounds

Table one summarises the two major sources of confounding factors that may be influential in the diversity of results reported in the literature: methodological and pedagogical.

Table one about here

As well as the issues listed, much of the evaluative research is American with its differing policing practices (such as the routine arming of officers). Some of the studies are also rather dated hailing back to the 1970s. Pedagogically there have been criticism of degree programmes, not only of the early American (Sherman 1978;

Roberg and Bonn, 2004; Southerland et al, 2007) and Australian criminal justice degrees courses (Wimshurst and Ransley, 2007; Green and Linsdell, 2010;) but also British police studies programmes (Taylor, 1983). Questions have been raised about the timing of graduate education-before or after entry into policing and also the value of a liberal university education versus a competency based model controlled by the police themselves (Wimshurst and Ransley, 2007; Cox 2011). Lambert (2016) has been critical of the apprentice degrees in general (one of the entry routes of the PEQF) in that only a minimum 900 hours of learning is required compared to 3,600 hours of a full degree leading to 'misleading' claims for the student's achievements. This raises doubts about purported outcome equivalence.

Context

The current transition of police training to higher education is a world-wide phenomenon (Corner and Shain, 2011; 2016). This trend is inextricably linked to the reforms of the modernisation and professionalisation agendas (Paynich, 2009; Stanislas, 2014; Rogers and Frevel, 2018). Debates about improving the image of policing and the quality of police performance have largely taken place in the U.S.A, U.K and Australia (Punch, 2007) and this review focuses on these countries. Paterson (2011) proposed three conceptually based underpinnings to determine the value added by graduate officers, professionalism, accountability and legitimacy. Historical and comparative perspectives suggest common pragmatic drivers motivating the transformation from police-controlled training models to involvement of HEIs that map onto and extend these themes:

- Reform of the police culture implicated in corruption and malpractice (accountability);
- Response to the changes in the complexities and types of police tasks (efficiency and effectiveness of performance);
- Offsetting crises of public confidence (legitimacy);
- Improving the standing and status of policing; (professionalisation);
- Economic downturn and austerity measures (economy).

In addition, Southerland et al (2007:91) outlines a degree of academic entrepreneurialism driving early US criminal justice programmes by suggesting

HEIs had been motivated by economic rather than academic interests. Some institutions had neither the expertise, nor inclination, to plan or resource early programmes. Instead they became "cash cows" which generated federal funds, through large enrolments, that were then siphoned off to support traditional disciplines with smaller student numbers.

Culture change, ethical awareness and accountability

Problematic aspects of the police occupational culture have been identified as a source of police corrupt and inefficient practices (Prenzler, 2009). Prinsloo and Kingshott (2004:55) argue that changing the culture and eradicating improper practices involves improving ethical awareness and respect for rules and regulations. In Australia e.g. several inquiries about police misconduct in the 1970s and 80s, called for reform by increasing participation in higher education (Mahony and Prenzler, 1996; Chan and Dixon, 2007). In the United States a combination of corruption and para military tactics in dealing with civil unrest during the 1960s and 1970s led to a number of commissions (e.g. Knapp, Kerner) in which better education for officers were called for (Paynich, 2009). In the UK, the 1960-62 Royal Commission was also stimulated by a number of corruption scandals. The Commission regretted the lack of university degree holders at senior rank (para 312) and suggested this put the police at a disadvantage compared to other professions.

Changes in complexity and types of policing tasks.

In the United States, the 1967 President's Commission on Law Enforcement and Administration of Justice recommend that policing must adapt to the needs of a more complex society and raising educational standards was a way to achieve this. As a result the 1968 Law Enforcement Education Programme (LEEP) was initiated (Weiner, 1974). This provides federal funding for universities to create curriculums for the police with the aim of enabling all police personnel to have access to a baccalaureate degree in the belief that college educated officers are more flexible and less hostile or prejudiced. Within ten years the number of colleges offering programmes increased tenfold although many police departments remained unconvinced of the necessity for degree level entry qualifications (Rydberg and

Terrill, 2010). Her Majesty's Inspectorate of Constabulary (HMIC, 1999) opined that policing was becoming more complex as the millennium approached with new technologies, new legislation and rising demands for service and that greater professionalism was required with training as a major factor. Foster's (1999) evidence to the Home Affairs Select Committee on Police Training argued that the police service should become more professional with graduate entrance the norm but the then home Secretary Jack Straw, declined this option. In his review of police leadership, Neyroud (2011) reiterated in his foreword "policing in the 21st century presents very tough and very different demands on the police" and recommended a more radical shift towards higher education which eventually became the PEQF.

Legitimacy

Scandals undermine trust and confidence and threaten police legitimacy. Inquiries following the corruption scandals in Australia contributed to the momentum in moving policing from a vocation to a profession (Finnane, 1990; Wimshurst and Ransley, 2007). As had happened previously in the United States (Paynich, 2009), police strategy and tactics following civil unrest in Brixton (London) in the 1980s failed spectacularly leading to a severe breach of trust and confidence amongst the black and ethnic minority communities and resulted in the Scarman Inquiry, 1981. In response, the first MSc in public order policing was established at the University of Leicester in 1989. Two other universities, Portsmouth and Christchurch, Kent followed with in-service bachelor degrees in policing in 1992 and 1997 respectively. However, the model of training involving HEIs only changed more radically after the 2002 inspection by Her Majesty's Inspectorate of Constabulary (HMIC, 2002) in the aftermath of the Royal Commission on Criminal Justice (1993) following a number of miscarriages of justice and   the murder of Stephen Lawrence and subsequent Macpherson Inquiry (1999) which revealed not only institutional racism but also investigative incompetence.

Professional status

Policing was considered as an artisan craft (Rogers, 2010; Rowe et al 2016; Fleming and Rhodes, 2018) in which often working class young men could aspire to a respectable occupation (Reiner, 1978; Sherman 1978). Rogers and Frevel, (2018)

suggested that over the past decade because of greater interagency partnerships, police officers increasingly interact with degree qualified professionals. Thus the case for police professionalisation was made in part by the College of Policing (2016) to keep pace with the professionalisation of allied occupations such as nursing, teaching and social work (Simmell-Binning and Towers,2017) as well as other criminal justice practitioners such as probation (Dominey and Hill, 2010). So after almost a century of police control over its own training in the mould of craft, the Neyroud report laid down the marker to move policing from "being a service that acts professionally to becoming a professional service" (Neyroud, 2011:129).

In the United States, the rhetoric of making the police a profession was set in the 1920s by August Vollmer amplified in the 1970s by LEEP (Manning, 2005). Manning argues that the American police unions used efforts to make policing a profession as the basis for pay raises. Moreover Manning (1977) advanced a view that police professionalisation is a strategy mobilised by the police to defend their mandate and build self –esteem.

Economic downturn and austerity measures

The worldwide economic downturn has been suggested to have contributed to the impetus towards higher education in policing (Cordner and Shain 2011; Heslop, 2013). In the UK, austerity measures have hit all public services including the police. One of the guiding principles of Neyroud's wide ranging review into police training was to "reduce and recover costs" (Neyroud:2011:152). Simmell-Binning and Towers (2017) suggest that there was to be a new emphasis on police officers being responsible for their own learning. Cordner and Shain (2011) note that in the USA individuals pay their own way into attending basic police training and then go in search of employment. One of the PEQF routes into policing, that of the professionally focused undergraduate degree is explicitly stated to be at the person's "own expense" (College of Policing, 2016). Diderichsen, (2017) also argues that making the police more effective and efficient through higher education may mean fewer police officers. The Winsor review (Winsor, 2012: 94) made a similar point for policing costs in England and Wales.

In summary this analysis suggests that graduate education's contribution to the professionalising and modernising agendas was anticipated to change the dominant occupational culture, improve integrity and performance and bring about cost savings. The value of graduates to policing rests on the presumption of the qualities of "graduateness" (Nellis, 2001; Glover, Law and Youngman, 2002). The former suggests that the experience of university per se should broaden the student's horizons, stimulate their curiosity and imagination, foster intellectual confidence and create a capacity for self-directed learning as well as improve written and verbal communication. As applied to policing, Green and Linsdall, (2010) propose three generic skills which HE may inculcate: critical thinking, analysis and research-capability. More specific attributes may broadly be categorised as those attitudinal and dispositional characteristics that may change the culture and improve ethical practice and   performance related factors (Paynich, 2009). Before reporting the empirical evidence, it is worth noting that exposure to higher education does not necessarily deliver these ideals. Glover, Law and Youngman (2002) discuss the mismatch that can occur between emergent graduates and their employability. Lancee and Sarrasin (2015) questioned the liberalising effect on attitudes towards migrants of a sample of Swiss students passing through the educational system. Sleath and Bull (2015) showed that university students actually had more negative attitudes toward victims of sexual violence compared to police officers. Huey et al (2017) note that increased use of multiple choice assessment by universities and email communication has eroded some of the claims for enhancing writing skills and articulacy.

The empirical evidence

As Paterson (2011) points out much empirical research examining differences between graduate and non-graduate police officers originated in the United States with no studies being located arising from the UK until the 2000s. Table two summarises the main themes evaluated and the broad direction of findings.

Table two about here

1970's research

The first wave of evaluative studies of the 1970s had followed on from the professionalising reforms of the preceding decade (Berlin, 2014) arising out of the Presidents Commission of 1967 and concern over police-public relationships (Rydberg and Terrill, 2010). Studies looked at attitudinal and dispositional aspects such as authoritarianism, dogmatism, rigidity and openness and generally reported positive indicators associated with higher levels of education (Smith et al, 1970; Guller, 1972, Dalley, 1975). Graduate however were found to be more cynical (Regoli, 1978). Studies reviewing behaviour towards minorities were more equivocal. When operationalised as citizen complaints, Cascio (1977) showed graduates attracted fewer and Weiner (1976) found graduate more sensitive to community relationships. Weirman (1978) reported no difference between graduates and non-graduates in attitudes towards the public. Overall performance, when judged by supervising sergeants, found graduates performed better (Roberg, 1978). Miller and Fry, 1978 found negligible differences by levels of educational level as measured by Hall's professionalism scale (i.e.dedication, autonomy, self-regulation, and public service orientation). In terms of conduct as measured by discipline infractions (Cascio, 1977) and consequential severance (Weirman, 1977) then graduates had a better record. No differences were reported for stress (Miller and Fry, 1978) but with respect to job satisfaction Dantzer, (1993) found no differences whilst Trojanowicz and Nicolson (1976) reported college graduates more dissatisfied , frustrated by hostile reactions from peers and supervisors.

1980s research

The 1980s saw a focus on management reforms in the USA (Harring, 1981) and UK Savage, 2003), the introduction of problem oriented policing (Read and Tilley, 2000) and consolidation of models of community policing (Manning 1984). The decade was marked by racial tensions in the UK (Scarman, 1982) and mal-practice in Australia (Wimshurst and Ransley, 2007). Again no UK studies were located. From the USA, authoritarianism was still shown to be less pronounced in graduates (Austin and O'Neill, 1983). Golden (1981) had shown some negative attitudes by graduates towards women officers. Performance as measured by arrest rate showed educational level of individual officers had no effect on the probability of arrest (Smith and Klein, 1983) and no difference in use of force (Hayden, 1981: Sherman and Blumberg, 1981).

1990s research

The 1990s opened with the video footage of the beating of Rodney King and the ensuing Christopher Commission into the LAPD in the United States. In the UK the murder of black teenager Stephen Lawrence was to have major reverberations about racist attitudes of the police as well as concerns about their investigative effectiveness (Macpherson 1999). In Australia the Wood Commission reconsidered police corruption (Finnane, 1990). As Paterson (2011) says, the emergent literature in this decade had a more questioning tone about the value of higher education. Revisiting authoritarianism, criminal justice graduates were reported to have higher rates than other graduates (Owen and Wagner, 2008). A Queensland study showed an increase in conservatism and more punitive attitudes towards sex offenders by graduates (Christie et al 1996). Ellis, (1991) reported that Canadian police officers showed a progressive de-emphasis of their service obligations as they progressed from police college to operational patrol and greater likelihood of rule violations. Kappeler et al (1992) and Scott and Aamodt (1997) found graduates to generate fewer citizen complaints whilst Kakar (1998) found no difference. Shernock (1992) indicated no difference in use of discretion neither did Kappeler et al (1992). Scott and Aamodt (1997) found no differences with respect to discipline infractions. More positively, Worden (1990) found in his American sample, college graduates were more flexible. Graduates were also found to be better at accepting change, more prepared for court and had better crime analysis skills than non-graduate counterparts (Krimmel (1996); Kakar 1998).

2000 research

President Obama's task force on policing in 2015 was again concerned with issues of race and use of force by police officers and once again recommended higher educational standards based on evidence based practice. Lersch and Kunzman (2001), Mani's et al (2008) and Kane and White (2009) confirmed levels of education was associated with fewer complaints and policy violation in US policing. An observational study reported higher levels of education associated with less likelihood of using force (Terrill and Mastofski 2002) and another less abuse of authority (Telep, 2011). Johnstone and Cheurprakobkit (2002) reported equivocal results in police administrators' ratings that officers with college degrees received fewer

complaints regarding abuse of authority. Roberg and Bonn, (2004) indicated that criminology or criminal justice degrees did not appear to confer any advantages to graduate police officers, rather it is the overall experience of university that is critical. This implies it may be the generic skills (Green and Linsdell, 2010) rather than the more specific attributes that are key. Loftus and Price (2016) applied Hall's attitudinal attributes of professionalization scale to two mid-west police departments to find an overall moderate to high levels regardless of education background. Two Australian studies indicated positive associations with degree holders. Jones et al (2005) in a study of Queensland police showed no greater likelihood of graduates resigning early in their police career and Herrington (2017) demonstrated greater confidence in leadership skills.

England and Wales

The 2000s heralded major criticisms of training by HMIC (2002). Fundamental re-organisations followed with the introduction of the Initial Police Learning and Development Programme (IPLDP) in 2006 (Constable and Smith, 2015; Macvean and Cox, 2012) with the aim of promoting critical and lateral thinking, improving understanding of community and removing the cultural blocks to modernisation (Blakemore and Simpson, 2010). The District Training Schools were closed, the Home Office ceded responsibility for training to forces who implemented the policy in different ways (Heath, 2011). Some went into partnership with local universities to produce either a certificate in Policing Studies (e.g. Surrey Police in conjunction with Portsmouth University) or a two year Foundation Degree in policing (e.g. University of Huddersfield with North Yorkshire Police). Other forces opted for National Vocational Qualifications. The Neyroud and Winsor reviews proposed (different levels of) uplifts of policing qualifications which was finalised at degree level by the promulgation of the PEQF by the College of Policing.

There are just a handful of studies from England and Wales evaluating the consequences of these reforms. Lee and Punch (2006), Punch, (2007), Jones, (2015) Norman and Williams, (2017) and Hallenberg and Cockcroft (2017) looked at in-service bachelor degrees; Rogers, (2010), Heath, (2011) and Heslop, (2011) researched in-service foundation degrees; Pepper and McGrath, (2014) and Charman, (2017) reviewed the pre-employment Certificate of Police Knowledge; whilst Cox

and Kirby, (2018) examined pre-employment degrees. These are mostly qualitative self-report studies with small samples looking at specific programmes.

Lee and Punch (2006), Jones (2015) and Norman and Williams (2017) found the graduates they interviewed felt they were more reflective and questioning and had greater understanding of the police role and function and exhibited more reflexivity in relation to members of the public. Heslop (2011), Jones (2015), Hallenberg and Cockcroft (2017), Norman and Williams (2017) and Cox and Kirby (2018) all reported negative experience of student officers at university. These findings are particularly noteworthy in that the advantages of a degree seem to derive as much from their immersion in the totality of the university experience if not more than the specific degree undertaken. Moreover, post entry degrees in particular seemed to limit the immersion opportunities and exacerbated an "us and them" mentality thus confirming American (Paoline, Terrill and Rossler, 2015) and Canadian research (Ellis1991) suggesting the positive effects that may be wrought by university education can be subverted by police socialisation. A significant longitudinal study by Charman (2017) found that officers who had studied for the Certificate of Knowledge in Policing (a pre service qualification) not only became more cynical as they proceeded through their field training but also she highlighted the importance of stories or 'tropes' (p321) from those they worked with as the more valued source of knowledge, teaching them about instinct, suspicion and self-preservation as being more important than classroom learning when preparing to go out on to the streets..

Discussion

The reform and professionalising agendas in policing seem to take as a given that the uplift in education to graduate level will result in the hoped for changes to improve legitimacy, performance, integrity and reduce costs (Cox and Kirby, 2018). The attributes graduates are thought to bring to policing have been something of an article of faith (Miller and Fry, 1978:30; Taylor, 1983:128; Worden, 1990:566; Wimshurst and Ransley, 2007:118). Yet, from the synthesis offered here it is doubtful whether such a leap of faith have brought about the expected results. It is not so much the dearth of papers rather the diversity of results which makes interpreting the evidence difficult. In part this is due to problematic methodological issues, lack of equivalence

in the type of tertiary education officers undertake, and timing of graduate education undertaken. A further confounding factor is the non-alignment of research to address the aims of the police in its movement towards higher education (Wimshurst and Ransley, 2009; Huey et al, 2017), a consequence of the well documented disconnect between the police and academic cultures (Canter, 2004). Apart from the economic forecasting provided in the Neyroud report, no studies were located to demonstrate cost savings as a consequence of increased graduate presence in policing. In terms of performance we can say little not only because findings are equivocal, but also few studies attempt to unpick more complex performance as in problem solving or decision making. As for improving ethical standards, this too was measured somewhat crudely by number of discipline infractions or citizen complaints. Fewer complaints mean less engagement with the public or a shying away from difficult encounters. More complaints may signal oppressive behaviours. The research offers little insight into which of these alternatives explanations are more likely. The quantum of empirical studies over the last five decades does show a tendency for graduate police officers to be less authoritarian, more open and flexible, although not necessarily less cynical but these results shed little light on how a degree relates to the 'doing' of the job (Wimshurst and Ransley, 2007:111).

Apart from suggesting that "education is a good thing" (Taylor, 1983:128) advocates of higher education in policing argue that the liberalising environment, and contact with diversity of ideas and people brings about greater tolerance of difference, more effective human relationships and greater understanding of multi-cultural society (Heath, 2011; Stanislas, 2014; Jones,2015). This, it is said, is brought about simply by exposure to the university environment (Christopher, 2015). Yet as Worden (1990) argues higher educational experiences do not necessarily result in these attitudes and notes the problematic link between attitudes and behaviours. Apart from the notion of "graduateness", there is relatively little conceptual reasoning offered to explain why, and how higher education matters in the performing of police tasks (Hayeslip,1989; Rydberg and Terrill, 2010) or indeed what elements are particularly successful (Fleming,2014). In the context of policing, we do not know whether it is the change from the traditional method of didactic teaching and learning by rote towards an androgenic pedagogy of adult learning or exposure to diversity of people and ideas that permits a) an integration of practical wisdom and theoretical understanding

(Heath, 2011); retention of what is learnt for use as building blocks for future development (Smith and Aamodt 1997); or c) a granting of autonomy which works best in the latitude afforded by models of community policing (Regoli 1976). These are plausible but as yet the underlying assumptions remain untested.

Furthermore, there are tensions when the police try to preserve the craft based model by utilising competencies-based approaches and resist the transformational challenge offered by higher education (Cox, 2011). Police-controlled degrees might raise operation standards but "it is far from clear that [they] can contribute towards making police organizations significantly more diverse, representative and accountable" (Wimshurst and Ransley 2007:120). Then there is the vexed question of the role of experience and intuition implicit in the craft of policing which is usually counterpoised with the analytic rationality provided by degrees (Rogers, 2010; Rowe et al, 2016; Fleming and Rhodes, 2018). Akinci and Sadler-Smith (2013) propose that many policing tasks rely on subjective and incomplete information that have to be performed under time pressures requiring predictions about uncertain outcomes necessitating intuitive experiential solutions. Rowe et al argue applied and practical aspects of policing are learnt through experience and exposure to the role and are neglected by degree programmes driven from above and outside.

What seems to be clearer is that the kind of degree studied is less important than the experience of university per se(Weiner, 1976: Cascio, 1977). Huey et al (2017) when reviewing Canadian higher education provision for police officers observe that recruiters saw little difference in the quality of candidate skills and knowledge based on degree studied. What also seems apparent is the potential conflict that may be created by the student officer trying to adapt to both the academic and police cultures and a reproduction of the disconnect between campus and police station identities (Heath, 2011; Heslop, 2011; Cox and Kirby, 2018). The feeling by officer students that they were not equivalent to other students, or their perception that they were 'spoken down to' confirmed the ethic of distrust of the academic world by the officers (Young, 1991:38) and recreated an "us and them" mind-set. This is especially the case when the student officers are also available as deployable resources to their force (Heath, 2011).

Conclusion

Whilst a case could be made on value grounds that university educated police officers are a 'good thing' to manage complexity in the modern world, the empirical evidence base is not strong enough to draw definitive conclusions about the improvements that more specific graduate attributes bring to policing and this is particularly the case for UK based research. Although the balance sheet of positive attributes is in favour of graduates, there are studies finding no differences and yet other with contra results. As yet performance has not been properly evaluated as many studies operationalise in terms of fast time decisions-to use force or make an arrest, rather than the slower time more complex problem solving and decision- making, where graduate may have an advantage.

The risks for the present PEQF are, on the one hand , that its proposed apprenticeship post-employment route is too police controlled and may be particularly susceptible to the potential adverse socialising effects of the police occupational culture rather than transforming it (Wimshurst and Ransley, 2007; Heslop, 2011; Cox and Kirby 2018). The apprenticeship route particularly appears to limit opportunity for immersion in university life but does provides strong opportunity for the potential subverting effects of police acculturalisation. Teaching by way of war stories (Charman, 2017) can be a barrier to recruit learning (Chappell and Lanza-Kaduce, 2010). Lee and Punch (2006:102) concluded that the key elements of the university experience is the stepping outside the organization, meeting a wide range of people and developing intellectual capacity. As they say it rather defeats the purpose if officers take a degree together in a tailor-made programme or if the content is shaped to be overly functional for policing. This merely conserves conformity to stereotypical thought and conduct. As Cox and Kirby (2018:560) caution simply moving the police training site to a university campus does not necessarily change the culture. On the other hand too much control by HEIs in the past has led to charges of poor programme quality. The answer may be greater co-production of an integrated theory and practice curriculum (see Huey et al, 2017 and Heath, 2011). The split between classroom time and operational deployment also needs to be resolved for post-employment degrees. The salutary story of the Danish experiment mandating

degree level entry where deployment conflicts contributed to its failure (Diderichsen, 2017)

The fore-going is more of an indictment of the available research rather than against graduate level entry into policing. A research programme is required that provides a thorough needs analysis which first addresses the question what is policing for (Bradford et al, 2014) then identifies what is good policing (Bowling, 2007). Only then can we specify what is wanted in a good police officer (Sanders, 2003; White, 2008). Such an analysis might examine the educational needs at all levels of policing within the context of changing society. From this staring point we can develop curriculum that both integrates theory and practice and incorporates experience, establish learning benchmarks and embed longitudinal evaluation to measure performance outcomes.

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