

An Ethnographic Approach to Researching the Introduction of New Forensic DNA Technologies in Policing in the UK

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Discipline

Sociology [D1]

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Crime and Deviance [SD-Soc-4]

Academic Level

Advanced Undergraduate

Contributor Biography

Dana Wilson-Kovacs is a lecturer in the Department of Sociology, Philosophy and Anthropology at the University of Exeter. She is a qualitative sociologist whose recent interests took her into studying the application and governance of technological innovation and local negotiations of regulation, especially in the use of forensic technologies in policing. Among other topics, she has published widely on professional trajectories and shifts, especially in biomedicine and biotechnology. Her current project looks at the development of digital forensics in policing.

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Abstract

Forensic DNA techniques provide essential support in criminal investigations, especially in the case of serious and major crimes where no expenses are spared. However, we know less about their current use and provision in relation to offences which occur more frequently, such as burglary or theft from a vehicle (also known as ‘volume crime’ in the UK). There are different ways in which a researcher can begin to address this knowledge gap. The present case study discusses a qualitative methodological perspective that aimed to illuminate the ways in which existing and future forensic capabilities are viewed by the various professionals involved in their adoption and use. In the context of an unsettled forensic landscape, marked by budget cuts to police forces and an increased scrutiny on the effectiveness of forensic resources, understanding how forensic DNA technologies are made sense of by these professionals can help inform their implementation in policing. This case study shows how ethnographic interviews and observations, combined with visual and documentary methods open to critical scrutiny institutional processes and occupational dynamics that have often been overlooked in current scholarship. It argues that a qualitative perspective focused on organizational narratives and career trajectories renders visible the skills and activities of forensic examiners and police officers, and in doing so, provides valuable insights into the difficulties of introducing new forensic DNA technologies in the examination of volume crime.

Learning Outcomes

By the end of this case study, as a student you should be able to:

1. Recognize some of the challenges raised by a sociological analysis of emerging forensic DNA technologies and their implementation in police practice,
2. Distinguish between different ways in which qualitative methodological approaches can document the perspectives of various stakeholders engaged in technological adoption,
3. Understand how an ethnographic perspective using a combination of in-depth interviews, observations and visual and documentary methods, can offer a holistic view of the actors and processes involved in the application of forensic DNA technologies in criminal investigations.

Overview and Context

From fictional media representations, such as the *CSI* franchise in the US and the *Prime Suspect* series in the UK, to news coverage and policy guidelines, the application of forensic DNA in policing has received considerable interest. Seen as the gold standard of forensic science, forensic genetics tools have gained extraordinary credibility in and outside juridical settings (Cole, 2015). Social science scholarship on this topic has focused on the social and ethical issues raised by forensic genetics (Machado & Prainsack 2016), the organisational contexts of its applications (e.g. Jasanoff, 1998; Lynch et al., 2010) and its perceived impact and value (e.g. Ludwig, 2016; Roman et al., 2008).

While bringing many valuable insights, this scholarship has largely overlooked the ways in which forensic DNA technologies are applied in routine police investigations, those involving the examination of offences which occur more often and affect a greater number of people, like burglary or theft from a vehicle (also known in the UK as ‘volume crime’). Key questions on the effectiveness of forensic DNA trace in solving this type of crime and of the processes through which samples collected at the site of a burglary lead to the identification and prosecution of suspects, have remained largely unanswered. Critically, even less is known about how crime scene examiners and police officers, who are the main users of these technologies, understand their value.

To address this knowledge gap, a researcher may begin by examining the quantitative data gathered by law enforcement agencies. In the UK, this involves figures collected by the 43 police forces to monitor performance in each constabulary. However, these figures offer a partial picture and tend to be rather fragmented, as forces in England and Wales have had separate systems for recording detections from forensic hits (i.e. the number of times when forensic DNA traces collected at a crime scene led to the identification of a perpetrator) and the instances when prosecutions were made on the basis on this evidence (Tilley & Ford, 1996).

Much of the social science research in this field has been commissioned by government bodies and often adopts a quantitative stance to describe the bigger picture, draw national comparisons and policy recommendations (e.g. Roman et al., 2008; Tilley & Ford 1996; Williams 2004). In contrast, existing qualitative sociological analyses on forensic DNA technologies have typically focused on government representatives’ perspectives on the UK

National DNA Database (Williams & Johnson 2008), and the views of forensic scientists (Lawless & Williams, 2010), prisoners (Machado & Prainsack, 2013) and the public (Stackhouse et al. 2010, Wilson-Kovacs, Wyatt, and Hauskeller, 2012). Similarly, although ethnographers who have carried out research on policing often comment on the relationship between police practice and technologies (e.g. Chan, 2001; Manning, 2008), studies on technological acquisition - especially in relation to the “application of different forms of scientific knowledge” (Innes et al., 2005:39) – are rare.

One way in which we can explain this oversight is that crime scene recovery is mainly understood as providing technical rather than investigative support (Williams 2004). Not only does the collection of forensic evidence fall into the remit of a largely civilian personnel, but also crime scene examiners see themselves as ‘backroom boys’ (Wilson-Kovacs, 2014), who provide information to police officers without having substantial investigative input. As the processes and occupational groups involved in the collection and use of forensic DNA in crime examinations remain largely invisible, it is perhaps not surprising that so little is known about these aspects.

Yet, gaining insight into these issues is needed to provide a detailed picture of how forensic genetics contributes to criminal investigation. Qualitative methodologies that help unravel everyday activities and shed light on the perspectives of key stakeholders on forensic DNA technologies, can complement and enrich existing quantitative data, allowing for a contextual and detailed understanding of forensic accomplishments, the gaps and tensions in the delivery of forensic science. This case study presents such an approach.

The Project

My research aimed to offer a grounded analysis of forensic support in volume crime investigation, an area that Robin Williams and Jason Weetman have called an “otherwise dimly lit socio-technical landscape” (2013: 4). More specifically, I wanted to examine the development and implementation of Accelerated DNA Profiling Technologies (hereafter ADAPT) and Rapid DNA solutions in policing in the UK. ADAPT and Rapid DNA technologies refer to devices which help identify DNA profiles from crime scene samples outside the laboratory environment within an hour. These profiles can then be submitted directly to the National DNA Database for searches against records of individuals and/or crime scenes. Unlike traditional DNA analysis, which involves sending DNA samples to the

laboratory and is time consuming, the short turnaround provided by ADAPT and Rapid DNA tools means speedier processes of identification and prosecution, or elimination, of suspects.

ADAPT and Rapid DNA have been initiatives advanced by the National Policing Improvement Agency (NPIA), a non-departmental unit established by the British Home Office in 2007 and dissolved in 2012. NPIA aimed to support forces with practical solutions envisaged to optimise the use of forensic science in policing. Given the dissolution of the UK Forensic Science Services in 2012 and ongoing budget cuts to police forces, ADAPT and Rapid DNA offered a novel and cost-effective way of processing forensic DNA traces. In this context, I wanted to explore how both established and new forensic DNA technologies are understood by the different professional groups involved in their adoption, governance and use and perceived to enhance existing police practices.

The NPIA invited commercial developers to propose and roll out the new technologies for forces to trial in 2009. My entrance into the field happened shortly after. The development of these devices was coordinated centrally, and my access to participants was facilitated by a senior member of the NPIA, who was aware of our work and established stronger links to some of the more senior members of staff in my university department. We were invited to observe the pilots and study the implementation of ADAPT and Rapid DNA solutions, their utility and impact on volume crime investigations. This offer presented a 'research bargain' (Brewer, 2000), which is an opportunity to pursue fieldwork beyond its original scope. Here, the 'bargain' combined the focus on the pilots with an independent detailed analysis of forensic practices and occupational dynamics in the field.

In hindsight, what appeared as a straightforward set-up was riddled with difficulties. The NPIA was to be disbanded, alongside the Forensic Science Services in 2012, a decision that impacted on bringing the technological solutions forward within the planned timeline. The production of ADAPT and Rapid DNA solutions also was deferred to allow for technical refinements. While waiting for the pilots to start, I began to interview representatives of the NPIA and Home Office and users of forensic technologies about their expectations. This decision proved timely, as the pilots were postponed beyond the lifetime of my project. I have a long-standing research interest in career trajectories, which in recent years centred on exploring the intersection between emergent technologies and their impact on occupational groups. The delays in the pilots brought this focus to the fore.

Research Design

I started from the premise that studying the adoption of technology in policing requires detailed scrutiny to tease out the complexities of technological implementation. My methodological design followed a qualitative approach favoured by the first generation of science and technology studies researchers (e.g. Lynch, 1985; Latour, 1993) and developed in their analyses of laboratory work to capture how routines, interactions and competencies are both constitutive to the ways in which scientific processes unfold, yet flexible and prone to change. This angle helped highlight how those who facilitate the provision of crime scene examination engage in and accomplish forensic activities.

I visualised the task ahead as an emergent process, akin to that of stitching a patchwork quilt (Saukko, 2003), where various qualitative tools would help illuminate underexplored aspects of volume crime investigation and the organizational settings within which this occurs. I chose semi-structured interviews to enable participants to unravel their views on emerging forensic DNA technologies and integrate them within broader reflections on the impact of forensic genetics on crime investigation, professional cultures and individual career trajectories. Observations of related workshops for the providers of these technologies and a documentary analysis of the ways in which the NPIA generated and sustained interest in ADAPT and Rapid DNA technologies were also planned to complement the interview data and strengthen its reliability and epistemological validity.

In planning the research, I was faced with a number of practical, ethical and political questions: (1) how to convey the multitude of perspectives on the development of new forensic DNA technologies; (2) how to present the accounts of different groups involved in a balanced, non-biased and non-hierarchical way, while depicting the relations of power and the exchanges, negotiations and dependencies between them; and (3) how to ensure that the findings were not distorted or simplified. I was aware that to resolve the last of these issues, the outputs of my research should be tailored to both academic and practitioner audiences and disseminated widely to encourage dialogue between stakeholders.

In addressing the first two of these problems, I sought to give all those interviewed an equal chance to air their opinions on this topic, which took place on the background of cuts to forces and insecure professional futures. I was aware that the perspective of the NPIA participants, which advocated the introduction of ADAPT and Rapid DNA technologies was

likely to prioritize effectiveness in forensic delivery and savings to police forces, whereas the views of police officers and crime scene examiners would focus on the offences committed and bringing justice to the victims of crime. Although these two aims are not mutually incompatible, reconciling them in practice has been difficult, as top-down initiatives have often been regarded with suspicion by rank and file officers, a point widely documented in the literature on policing (e.g. Manning 2008).

Similarly, given that crime scene investigation is undertaken by civilian personnel and their expertise is usually perceived as technical rather than investigative (Williams 2004), I expected that the accounts of forensic practitioners to highlight different challenges that those of police officers, and wanted my analysis to encompass both.

Ethnographic Interviews

I adopted the view that data are produced, not collected, and research projects involve a degree of collaboration and partnership between the researcher and the participant (Charmaz, 2014), which shapes this production. Aware that no proceedings are conducted in a neutral political and cultural vacuum, I saw the interviews as a series of interactional occurrences that help generate data, rather than portals to its collection. To ensure this process occurred organically, I chose a qualitative tool developed by James Spradley in the 1970s.

Likened to a ‘friendly conversation’ (Spradley 2016: 464), the ethnographic interview is based on a gradual production of data facilitated by building rapport between the participant and the researcher. It has been used to document organisational arrangements in a context where other methods, such as observations, are deployed. Its purpose is to enable informants to present their culture from the ‘inside’, through a series of carefully targeted questions and explanations, which are slowly introduced by the researcher so that the interaction never feels like a ‘formal interrogation’ (idem) and the relationship between researcher and participant is strengthened with each consecutive exchange. Building rapport with my interviewees was key: ethical considerations aside, it was important because of the quality of data sought, and my intention to share the findings of the project with them.

Following interactionist accounts that show how organisational scripts are appropriated, subverted and resisted by members, my choice of ethnographic interviews aimed to explore, through participants’ experiences, the intricate institutional settings within

which forensic practices in policing unfold. I wanted participants to both convey their views on particular aspects of technological innovation and reflect on developments in the application of forensic genetics in policing in relation to their own career. These reflections would enable us to identify professional values in the context of evolving occupational practices and take stock of historical and present changes.

Data Analysis

My decision to analyse the data through a grounded theory approach (e.g. Glaser & Strauss 1967; Charmaz, 2014) was based on its flexibility in situations where the research develops in unexpected directions. Grounded theory methods consist of simultaneous data production and analysis, which inform and fine-tune each other throughout the research process. This encourages the scrutiny of the studied phenomena, revisiting and revising original assumptions and allowing the development of an integrated set of theoretical concepts from empirical findings to help synthesise and interpret processes and relationships.

Aware that grounded theory has been applied in different ways over the years, my approach to it was to explain—rather than justify—in as much detail as possible my informants' perspectives, and the overlaps and dissimilarities between them. Like data production, I took analysis to be an interpretation of reality, rather than an objective report of it. Here I found very useful Kathy Charmaz's (2014) constructivist stance and interpretation of grounded theory guidelines as tools, focusing on individual accounts and allowing the researcher to immerse herself in the studied realities, while fully aware of the part she plays in the production of data.

As the interviews progressed and testimonies unfolded divergent perspectives, adopting a grounded theory approach helped compare the different standpoints presented and tease out the difficulties in the implementation of new forensic DNA technologies. Transcripts of the taped interviews were examined systematically and sequentially, and categories developed through an analytic process of comparison to highlight similarities and differences between accounts. Alongside member checking of the accuracy of the narratives and their interpretation, this time intensive approach consolidated the findings and informed consecutive exchanges in the field.

In the analysis of data, I paid attention to the specific meanings attached by participants to their actions and explanations and tried to situate these in the context of individual working trajectories. I tried refraining from right–wrong dichotomies and clear-cut taxonomies, as these are ill-equipped to capture the heterogeneity of forensic practices. Moreover, while mindful of previous work on policing and technological innovation, I was careful not to simplify findings or assume these would correspond neatly to my participants’ experiences. On the occasions when accounts suggested such a correspondence, meticulous probing tried to establish the points of intersection with other studies and their relevance and usefulness to the contexts and situations described by my informants.

The extensively documented police ethos (Chan, 2001; Manning, 2008) for example, would be brought up in different ways in the testimonies of police officers and forensic personnel. While officers were aware of their dominant status, they were equally cognisant of the skills and contribution of forensic practitioners. Similarly, in reflecting on their careers, crime scene examiners acknowledged how changes in the organisational culture of policing were instrumental to the wider recognition of their expertise. Notably, both occupational groups were united in their criticism of bureaucratic procedures and centralised, top-down initiatives.

Methods in Action

The interviews took place over six months during 2011, and were accompanied by a documentary analysis of official sources, ethnographic observations of custody suites, participation in internal workshops and 13 in-depth, semi-structured, face-to-face exchanges with stakeholders at different levels of seniority, including National Policing Improvement Agency (NPIA) and Association of Chief Police Officers (ACPO) representatives, Home Office and the DNA Ethics Committee members, and eight forensic support personnel working in a south of England constabulary (four crime scene examiners, one forensic and investigation quality supervisor, one crime scene manager, one crime scene coordinator and manager, and the manager of the scientific support unit). Participants were selected using a snowball method and usually interviewed at their workplace. In terms of the demographic profile of my interviewees, ages ranged between 42 and 65. Of the 13, only two were women (this, however, is not necessarily typical of the crime scene examiner or the civil servant domains I drew my participants from). Four were sworn police officers and the rest civilians,

of which two had a legal background, four had fingerprint training and the rest a scientific education, with each having at least ten years of experience in their respective field.

Following the British Sociological Association's statement of ethical practice, anonymity was guaranteed to all interviewees: in the case of the higher-ranking participants it was agreed that their position and place within governmental bodies would be identified in writing up the analysis, to help present official interpretations as well as individual understandings of various aspects of policy. For members of the forensic scientific support, their position in the organisation was also disclosed to inform how different backgrounds (e.g. fingerprint or managerial) shaped participants' perspectives.

I was aware that self-presentation, both verbal and non-verbal, would determine the degree of trust and the type of bond I would establish with my informants (Brewer, 2000). Not only was my clothing neutral, overall formal and matching that of my interviewees, but I made sure to be always on time, checking a couple of days before each interview that arrangements still stand (invariably they did, although on a few occasions we had to reschedule due to participants' urgent and unexpected work commitments).

Knowing the interview questions beforehand meant I could conduct our interaction in a smooth and relaxed manner. I also learnt as much as I could beforehand about my interviewees: in the case of the Home Office and NPIA representatives, this consisted of becoming familiar with their work and reading some of their outputs. For the forensic support personnel interviewed, the information gathered in each of our interactions helped with the guided conversation carried out in the next, as I gradually became aware about how things are done in the constabulary studied, the role and place of each of those interviewed, relationships with their peers, and exchanges with members of other occupational groups.

The interviews lasted between one and two hours and centred on individual views on forensic technologies in policing, the potential challenges such technologies raise and the strategies used to address the gaps and tensions in forensic provision. These issues were examined in relation to participants' knowledge and past and current duties, employment background and training received. To document the relationship between the development of forensic technologies and that of individual careers, interviewees were encouraged to explore in detail what they identify as relevant to their job role and overall expertise in relation to crime detection and management. To this end, the interviews followed two threads: one

seeking to unveil the context of participants' own development and the other concentrating on their interpretations of forensic technologies. However, the two parts often overlapped: for instance, when discussing the ways in which forensic technologies had been introduced in police work, participants would often reference their professional journeys and draw on their expertise when justifying or challenging the need for new DNA tools.

The careful interweaving of organizational and personal narratives provided useful contexts for the data analysis. I learned that most of the practitioners interviewed honed their forensic skills as fingerprint examiners in the 1970s and 1980s. Recounting firsthand the impact made by the advent of forensic DNA to investigative practice brought into focus the transformation of institutional practices, from adjustments in the ways in which forensic DNA traces were submitted for analysis, to the tightening of rules surrounding the admission of DNA evidence in court and the escalating application of forensic DNA tools in volume crime examinations. These testimonies revealed the pace and speed of change as well as the influence this has had on ideologies of professionalism in the field.

I found that some participants, forensic support personnel, crime scene managers and police officers would talk in more detail about such experiences than higher-ranking stakeholders, who tended to focus on the topic of new forensic DNA technologies without extensive personal reflections, an ability honed in through public appearances and presenting to Home Office and government officials. The opportunity to have repeated interview exchanges with these participants was also limited. What the testimonies of these participants offered instead were richly textured, detailed views on how the governance of forensic DNA technologies had evolved in the British context and its future direction of travel. The intricacy and sentiment of the narratives produced were on occasions conveyed by the visual maps some of the participants provided to illustrate their accounts.

Visual Methods

To focus the interview and facilitate the production of rich data I encouraged participants to draw maps of the ways in which they saw the development of forensic DNA technologies and the role of the different stakeholders involved. Often adopted in psychological research with children, the use of visual tools in interviews has increased in sociological and anthropological research in recent years (e.g. Bagnoli, 2009). I had been using this approach

in previous projects on sensitive issues, where it proved useful to display in a graphical form, the complexity of the accounts produced and highlight different aspects of the processes under scrutiny. It also brought to fore participants' own perspectives and what they identified as key issues in an unmediated yet contextual manner.

Typically, the interviewee would be requested to draw the map at the beginning of the interview and then guide me through it. Our conversation would evolve around the details captured in the map as well as the planned questions. More importantly, the map focused attention to aspects and angles that may not have been anticipated when assembling the semi-structured interview schedule. For instance, Figure 1 charts the trajectory of forensic DNA evidence from crime scene to court and, in doing so, introduces the several stakeholders involved and the elaborate exchanges that ensue (represented below in the criss-cross of lines between the items on the page).

Figure 1. Interviewee's Chart of the Path of Forensic DNA Evidence From Crime Scene to Court **[Caption added. OK?]**

I found that drawing the map structured the interaction, enabled rapport and created a basis for the interview to evolve naturally into a more intuitive, yet focused, exchange. While not everyone agreed to draw and not all those who did produced intricate representations, the exercise allowed me reiteratively to check the accuracy of the information produced and connect different parts of a story. It helped provide the bigger picture (as in Figure 1) as well as explore less prominent aspects. Even when the informants declined to engage in the task or, after consulting colleagues who had already taken part in the research, prepared something before the interview, rapport remained strong, with participants keen to compensate with further stories and inviting more questions.

For example, one of the crime scene examiners drew Figure 2 prior to his interview, and when requested to engage in the drawing exercise, submitted the finished product. I took the gesture as an indication of the boundaries of his involvement with the anticipated task and willingness to engage in similar exercises.

Figure 2. Interviewee's Depiction of the Role of the Crime Scene Examiner **[Caption added. OK?]**

The picture, which was presented as a humorous depiction of the participant's work routines, singles out the crime scene examiner as a soldier or defender. In full attire and armed with a giant cotton bud, he is sampling a rather cross-looking and hostile splash of blood. I decided to explore the drawing further to elicit the personal stories that had led to its production. The focus on the confrontation between examiner and DNA trace helped us home in on the core of the participant's metier and the strength of his belief in bringing perpetrators to justice. The interview proceeded by exploring his experiences as a scene of crime examiner and opened up the conversation to what he considered important in relation to the forensic technologies.

Observations and Documentary Methods

Ongoing field-notes and observations were used to refine the production of interview data, the generation of categories and the subsequent analysis. Supporting the latter and contextualising the findings, documentary methods helped outline how forensic provision across the 43 police forces of England and Wales has been devised in policy and conceptualised in police research. They enabled the corroboration of accounts and strengthening of findings through the triangulation of data.

Documentary methods were also used to analyse the content of Open Minutes of various boards and committees involved in the application of ADAPT and Rapid DNA solutions in policing. Scrutiny of this data illustrated the extent of the debate generated by development of these technologies among stakeholders, and the points raised in relation to their introduction in police practice. Analysis of these sources enabled me to assess how issues brought up in the interviews resonated with other key actors and agencies. Comparing the interview data with publicly available, official documents demonstrated the similarities between individual accounts and the collective concerns of various stakeholders in relation to the introduction of new forensic DNA technologies.

Conclusion: Reflections, Limitations and Some Lessons

Learnt

The aim of this case study was to illustrate the challenges presented by a sociological analysis of emerging forensic DNA technologies and the ways in which qualitative methods and an

ethnographic approach combining interviews, visual tools, observations and documentary analysis can provide a comprehensive view of the actors and processes involved in the application of forensic DNA technologies in criminal investigations. Throughout the research process I understood my role as undertaking a public type of sociology (Burawoy, 2004), where through my academic lens, I supplied evidence which could feed into policy decisions with direct implications for the practitioners and police officers I interviewed.

I saw the task of analysing skilled practices, routines and competencies instrumental to putting forensic expertise on the policy map, and establishing a long-term research partnership, through which one could explore distinctive perspectives on the emergence of new forensic DNA technologies, highlight group interests, differences in opinions and power differentials. For instance, one point in the stakeholders' debate was the professional remit the operation of new forensic DNA should fall into: would forensic examiners be the sole users of ADAPT and Rapid DNA, or should the duties of other police personnel be extended to using these tools? Far from being a simple role delegation matter, the decision is linked to issues of accountability and ownership and central to the professionalisation of forensic personnel and diversification of police responsibilities.

Yet, my findings indicate that while the duties of the crime scene examiners have expanded, professional recognition is linked to long-established skills, such as fingerprinting, and accumulated experience of crime scene attendance, rather than more recently acquired abilities such as the collection of DNA samples from the crime scene. For those interviewed, role expansion was associated with fragmentation, rather than the consolidation of professional expertise. A further suggestion is that taken-for-granted assumptions about the effectiveness of forensic DNA technologies in solving volume crime should be examined considering practitioners' experiences and the processes through which the interpretation of DNA evidence is built into investigative narratives.

In hindsight, a timelier access to the developers' processes and pilots would have added further dimensions to the processes observed, and more interviews with both Home Office and NPIA stakeholders and members of forensic teams in other police forces would have given further nuance to the analysis and reinforced the findings, especially those highlighting the difficulties forces experienced with technological adoption. **[Au: Length and complex syntax of the next sentence make it quite difficult to follow. Please revise; break into shorter units.]** Against the encouragement that new technologies should be

readily embraced to keep up with the latest discoveries in the field, stakeholders emphasised the problematic aspects of this process: from the developers' overpromise and the delays in the delivery of these technologies, to the fit of these technologies within the existing scientific exigencies surrounding the submission of biological samples to the National DNA database; from their potential to de-professionalise and fragment an already stretched forensic support workforce, to the dangers of introducing these technologies to the criminal justice system and their impact on the forensic markets, stakeholders' testimonies built on their expertise in the field to outline the issues needed to be resolved before Rapid DNA technologies are adopted in all 43 police forces of England and Wales.

Some of the limitations of my approach are that the findings of the small number of interviews produced throw light only on certain aspects of this complex domain, handpicked by participants in relation to the introduction of new forensic technologies and their own views. In this sense, this exploratory research offered a preview of the bigger issues to be examined—among which the contribution of forensic science to police investigations was central to this inquiry—yet one which privileges different voices and perspectives and emphasised the impact of new forensic technologies on police practice and individual careers. The findings are neither definitive nor generalizable but raise awareness of issues which sometimes have appeared in other forums, such as practitioner literature, or government commissioned reports, but never approached from a more sociological perspective or explored comparatively in relation to different occupational outlooks.

Lessons Learnt

When trying to capture a diversity of opinions, expressed by professionals from different fields and degrees of seniority, you need to be flexible to accommodate your participants' often busy schedules and to be open-minded and respectful in exploring their views. This may be difficult as you may also feel strongly about the opinions expressed and wish to debate them. Remember that the ways in which you set up and conduct the interview will determine the nature and quality of the data produced.

When interviewing power elites, such as government officials, ensure you are asking precise questions that are essential to your study: have a set of three to five questions which can then be expanded to sets of sub-questions if the meeting allows. The participants' time

will often be limited, and further access to them, in the form of a follow-up interview, may also be restricted, so be clear about the information you require from them (and make sure that it is not something you may have access to anyway—in the form of an article for instance —if so, read it beforehand and direct the interview so that you can examine critically and in depth the issues raised there). In a nutshell, do your homework to maximize the interview encounter.

Producing qualitative analyses in a field dominated by quantitative studies can be extremely useful to put some of the data in meaningful organisational contexts and inform policy making. Make the most of your ethnographic interview data by ensuring it is robust and verifiable; observations and other methods, such as document analysis can enhance the robustness of your analysis.

When researching ongoing technological innovation, be prepared to adapt the research to the realities of the field. Gaining access to sites where technological innovation takes place is an important step but not the only one in ensuring the project can go ahead in the time allocated. Often delays, sometimes significant, mean that you may have to rethink your approach.

Exercises and Discussion Questions

1. What do you think are the benefits and shortcomings in researching the application of forensic knowledge in policing? Once you identified the later, discuss how these can be overcome using a qualitative methodological approach.
2. Why is an ethnographic approach valuable when studying different perspectives and organisational cultures?
3. What are the merits of keeping a flexible approach to the studied phenomenon?
4. Why is it important to tease out the different perspectives of the stakeholders involved forensic practices?

Further Readings

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