



CHAPTER

4 Cold Case Investigations in Context: Studies of Detective Work and Forensic Science

Cheryl Allsop

<https://doi.org/10.1093/oso/9780198747451.003.0004> Pages 45–60

Published: February 2018

Abstract

This chapter considers empirical research on detective work, in particular those which emphasize the bureaucratic elements of detective work, the role of entrepreneurialism in investigations, and the concept of investigations being information and knowledge work. These studies note the realities of detective work and help to set the current study into context. What will also become clear here is that the rhetoric of investigations work differs to the reality of them. Research setting out the concept of the ‘scientification’ of policing and research on cold case reviews will also be illustrated noting how cold case investigations are a further development in the ‘scientification’ of policing.

Keywords: [detective work](#), [investigations](#), [entrepreneurialism](#), [information work](#), [scientification of policing](#) [detective work](#), [investigations](#), [entrepreneurialism](#), [information work](#), [scientification of policing](#)

Subject: [Criminal Law](#), [Criminology and Criminal Justice](#)

Introduction

To better understand cold case reviews and their mode of investigation it is useful to set them in the context of empirical research on criminal investigations more broadly. Many of the studies of investigations which will help to make sense of the data from this present study lead to one or more of the following conclusions: (i) that investigative work is bureaucratic; (ii) that there has been an entrepreneurial detective culture; (iii) that investigations are ‘information’ and ‘knowledge work’; and (iv) that there is a growing reliance on science and technologies within this aspect of the policing function. Research on criminal investigations is limited, and for the most part dated, as will be noted presently. Much of what was originally known about detective work came from individual accounts or memoirs of retired detectives, such as *Fabian of the Yard* by retired Detective Superintendent Jack Fabian (1950). These usually depicted a somewhat glamorous edge to detective work, suggesting that criminals were normally caught by investigative skill, being outwitted by clever detectives. As we shall see, subsequent academic empirical research has often disputed these dramatic and glamorized accounts of detective work. For the most part, from much of the empirical research, it is evident that most crimes are cleared through routine police procedures, information from uniformed officers, and the offender being identified at the crime scene; as opposed to through any particular investigative skills (Greenwood et al. 1977; Hobbs 1988; Ericson 1993; Innes 2003).

p. 46

In this chapter I will first summarize some of the early academic accounts of detective work, noting the common finding that very limited investigative skills were used in investigations. I will then go on to consider empirical research on detective work which emphasizes its bureaucratic elements, the role of entrepreneurialism in investigations, and the concept of investigations being information and knowledge work. Research setting out the concept of the ‘scientification’ of policing will follow, and finally the limited research on cold case reviews will be illustrated. All of this will help to put the present study into context.

When considering cold case reviews and the investigative skills required, it should be kept in mind how these investigations were originally conducted and the related opportunities and challenges this presents to cold case review officers.

Studies of Detective Work

An early account by Matza (1969) contends that suspects were typically identified in two ways: one by 'rounding up the usual suspects', before then trying to match them to the crime; the other, by pursuing individuals already linked to the crime in some way. In so doing, it is suggested that little investigative expertise was required, or utilized. Similarly, Steer (1980) found only 10 per cent of crime was solved by 'detective work'. It is also worth noting that he additionally found that the police made little use of forensics in the investigations studied. Given the lack of investigative effort taking place, and the era when the study was completed, this is perhaps not surprising.

So, early research suggests that suspects were generally identified without any investigative skills or effort, though in part this reflects the times in which they were written. In the past, investigations held no special status and detectives were not given any specialist training as it was considered that no specialist skills were required (Stelfox 2009). The view that investigative skills were not required was reinforced by research which suggested that crimes were solved by members of the public and if no information was forthcoming at the beginning, the crime would not be detected by additional police activity (Stelfox 2009). Indeed, as p. 47 Maguire and Norris (1992) noted, the main skill detectives require is the ability to prove a case for court, and as such they require sufficient legal knowledge, especially knowledge of the rules of evidence, to be able to do so. As was also noted, it is information from the public which is generally pivotal in solving cases (Innes 2003; Maguire 2008). So, skills in eliciting this information from them are important (Innes 2003).

Aligned to this, what is also apparent is the shift from investigations being originally seen as an art or a craft, with investigative skills being both intuitive and learned on the job, to being far more scientific, both in terms of the literal reliance on forensic science in investigations and in the view that in following rules, regulations, and processes investigations become more scientific (Tong et al. 2009). Ericson (1993) found that detectives learn on the job, gaining what he calls 'recipe knowledge'. Innes, too, from his research on homicide investigations and detective work, notes that: 'Their work was seen as both a craft and a science requiring intuitive skills and knowledge of crime investigations and scientific rationality' (Innes 2003 p. 9). This idea of investigations being a craft is noted by others including Repetto (1978), and Tong et al. (2009). Investigations and investigative work has changed dramatically from being a craft passed down from practitioner to practitioner to a now professional process with detectives trained through the Professionalising Investigations Programme (PIP), where national vocational standards must be demonstrated. Previously competence was never formally examined and so in 2005 the Association of Chief Police Officers (ACPO) (now the National Police Chiefs' Council) launched the training programme with the aim of improving the investigative competence of those tasked with conducting criminal investigations through training (Stelfox 2009).

The programme encompasses training and skills from the basic levels of investigation through to the most complex, and so moving away from the earlier 'craft' model of investigations and learning from others on the job, to a professional training and development programme designed to improve competence and practice in investigations (Stelfox 2009).

Smith and Flanagan (2000) document the skills required to be an effective detective. Twenty-two core skills were identified, organized into three groups: first, investigative ability, which includes the skills associated with the assimilation and assessment of incoming information into an enquiry, and the p. 48 process by which lines of enquiry are generated and prioritized; second, knowledge levels, which concerns the different types of knowledge a senior investigating officer (SIO) should possess; and finally, management skills, which includes 'people management', 'general management', and 'investigative management' (Smith and Flanagan 2000 p. v). As Stelfox (2009) suggests, various technological and procedural changes have all required greater training and expertise, and investigator skills need to keep pace with change, with detectives able to know how to deal with the myriad different circumstances and crimes that come their way.

While it was previously noted that media representations of criminal investigations are depicted as exciting and generally successful endeavours, empirical research of investigations suggest this is not necessarily so. Participant observation research of detective work in one police constabulary by Thornton and Harper in 1991 found that for the most part detectives were engaged in a variety of administrative and clerical tasks, rather than on investigating crimes. In fact, in so doing, the time available to spend investigating crimes was vastly reduced. Their study, as mine, found that day to day officers spent most time reading and updating case file notes; but while for Thornton and Harper this was taking detectives away from investigating crime, conversely this book will show how these administrative tasks are a vital component of the cold case review process.

Investigations as Bureaucratic Endeavours

p. 49 Ericson (1993) also depicts investigations as bureaucratic endeavours, with detectives as case processing machines. With the aim of understanding how detectives exercise their discretion when investigating crimes, their interpretations of events and their use of rules in constructing accounts, Ericson notes the bureaucratic case processing aspects of an investigation. This is both in terms of choosing the cases to be worked on, choosing those with the greatest chance of success, and in the compiling of paperwork to account for the actions performed and the decisions made. For Ericson (1993), detective work depended on organizational criteria and bureaucratic requirements to demonstrate legitimacy and benefit the police organization. Indeed, Ericson concludes that cases were chosen that would show detectives to be effective ↵ and cases which appeared to offer little investigative pay-off were ignored (Ericson 1993).

What got worked on was selected by considering the amount of effort required and the probable outcome (Ericson 1993). From his study, Ericson (1993) noted that detectives would prospectively consider what the case outcome might be and act and account for it accordingly. During my research, I similarly found that the cold cases to be reviewed were 'cherry-picked', with those with the greatest opportunities for success given a priority. This seems to be a reasonable course of action: in cherry-picking cases that could be quickly detected, the ability to justify conducting cold case reviews is made, and so it in turn becomes easier to obtain further funding, and, importantly, the victims in these cases get justice when the offenders are caught and convicted. This is part of the bureaucratic requirement to appear successful and effective, noted previously, and is necessary to be able to secure the resources required to continue cold case review work. I also noted the entrepreneurial skills used by the review team when progressing cold cases, particularly when they were considering how to capitalize on the new scientific information that became available, and this entrepreneurial ability has often played a part in investigations.

The concept of entrepreneurialism has been identified elsewhere, including by Maguire and Norris (1992), who found that detectives engaged in an 'individualistic and entrepreneurial approach', with detectives wanting to take the glory for their successes, and with the desire to achieve results (Maguire and Norris 1992 p. 20). This need to be seen as effective is also noted by others, including Ericson (1993) and Manning (1997). Innes (2003) remarks on the entrepreneurial qualities detectives use to elicit information to progress a case (Innes 2003 p. 10).

With the development of ever increasing investigative rules and regulations, policies and procedures governing investigations and making investigators more risk averse, this ability to be entrepreneurial potentially diminishes. It will, however, again be noted in relation to cold case reviews.

Investigations as Information Work

p. 50 Detective work has been considered by many to be 'information work' in some way (Ericson 1982, 1993; Ericson and Shearing ↵ 1986; Ericson and Haggerty 1997; Manning 1997; Innes 2003). Brodeur and Dupont (2006) document the growing importance of the idea of police as information-brokers, and Ericson contends that 'detectives are information dependent' (Ericson 1993 p. 93). The same can also be said of cold case investigations.

Innes' (2003) ethnographic account of a UK homicide investigation team made an important distinction between information and knowledge in an investigation. Information, it is suggested, is data which has been ordered and communicated, and that could have potential relevance to the investigation. Information

is translated into knowledge once it has been considered in the light of what else is known in the investigation, and it is given factual status considered to be valid and objective. Knowledge is then used as a basis for future actions (Innes 2003 p. 114).

In essence, detectives interpret information which they then turn into knowledge, or ‘facts’, forming a narrative allowing them and others to make sense of events. Evidence is then produced when knowledge is formatted in line with legal requirements (Innes 2003). Thus, investigators will gather information in order to turn it into knowledge, and ultimately evidence to prosecute in the case. However, as Ericson (1993) previously contended, the ‘facts’ of the case depend on what detectives choose to include and how they interpret and account for particular situations. Innes (2003) concurs by noting that detectives establish the facts of the case based on the lines of enquiry they follow, and how they interpret and understand the available information.

Forming narratives of the event is an important aspect of how the situation is conceived of and understood by the investigating team, and others within the criminal justice system as the case progresses (Innes 2003). As evidence is gathered in support of the narrative being told, the case becomes actively constructed (Innes 2003). Accordingly, Innes, in line with McConville et al. (1991), Maguire and Norris (1992), Ericson (1993), and Sanders and Young (2003), thinks of investigations as ‘case constructions’, where detectives are constructing cases for the prosecution rather than truth finding per se. In so doing, this is where mistakes can occur: a case can go cold or lead to a miscarriage of justice when the wrong lines of enquiry are pursued to the exclusion of others. Indeed, Brodeur (2010) considered this to be particularly problematic. Brodeur (2010), was concerned that information could be made to fit the prevailing \hookrightarrow investigative hypothesis. That is, investigators will use what they want to use, and will disregard what they consider to be irrelevant. This concurs with Ericson (1993), who suggested that cases are constructed by detectives’ interpretations of a situation and their control over what is, or is not, included. As we shall see, for cold case review officers this can create problems when reviewing cases and looking for vital pieces of information from the original investigations.

p. 51

Brodeur (2010) suggests the place of information and knowledge in an investigation will depend on the type of investigation. In so doing, he proposed that there are three types of investigation: the identification investigation; the location investigation; and the case processing investigation. For Brodeur (2010), the identification enquiry, during which detectives aim to find an offender, is the type of investigation where the knowledge work is most likely to occur suggesting that:

If the criminal investigation process is conceived as a knowledge producing undertaking, then the identification inquiry is its most important stage—borne out by the fact that all forensics and scientific policing are focused almost exclusively on suspect identification (Brodeur 2010 p. 204).

Despite this, scientific evidence played little part in the identification of suspects in his study.

In this book, we will see how the use of DNA profiling in particular is driving cold case review success, in being able to identify the previously unknown offender. The ability to rework forensic samples from historic crime scenes to compare the newly created DNA profile to others on the National DNA Database (NDNAD) is providing the police service with renewed opportunities to identify and prosecute offenders of murder and sexually motivated offences, shaping the work the police service will expend resources on.

The ‘Scientification’ of Policing

As alluded to in Chapter 3, there has been a growth in what can be termed the ‘scientification of policing’ (Ericson and Shearing 1986), which has often been cited by numerous academics concerned with the escalating use of forensic science and technology in policing. In their arguably seminal study, Ericson and Shearing \hookrightarrow (1986) contend that science has transformed policing. The requirement for technological innovations in policing is needed, it is contended, to fight crime successfully, with the crime rate used as a rationale for obtaining more technological aids. But, as Ericson and Shearing (1986) note, the crime rate is not in police control.

p. 52

Nevertheless, the crime control uses for scientific technologies gives the police legitimacy and power, seemingly helping to uncover the ‘truth’ in a rationally accepted way (Ericson and Shearing 1986). Using scientific and legal rationality, they contend, provides a justification and motivation for action in a

seemingly neutral way, independent of any political ideology, providing ‘authoritative certainty’ (Ericson and Shearing 1986 p. 133). Accordingly, Ericson and Shearing tell us that as more technological uses are found, so are greater needs found for its use. This spiral of finding new and necessary ways of using technical innovations is what Ericson and Shearing term ‘the amplification effect’, where new ways of using science and technology are found. As they point out, ‘the police find new ideas for law, science and technology in the very process of using them’ (Ericson and Shearing 1986 p. 155).

Like Ericson and Shearing before him, Gary Marx (1995) also suggests that:

A considerable amount of the history of deviance and social control can be understood by looking at the field as an endless spiral of violations, social engineering responses, new violations and new responses (Marx 1995 p. 242).

For Marx, this search for the ‘silver bullet’, that is, the magic solution to the problems of crime control, means that in so relying on the seemingly certain solution to the crime problem, the underlying causes of crime are being missed. Nevertheless, technological solutions are hailed as the answer to these problems and are consequently shaping policing work. As Marx contends:

Yet technology offers new possibilities and in so doing also helps shape decisions. The increased prominence of social control through engineering is related to the availability of sophisticated and relatively inexpensive technology. If it is true that where there is a will there is a way, it is also often true that where there is a way there is a will (Marx 1995 p. 226).

If technology is available which could in some way control crime, a need and further uses for it will be found.

p. 53

This can be especially noted with cold case reviews and the use of advances in DNA profiling techniques and technologies, especially the NDNAD, and the ability to link historic crime scene samples to other crime scene or offender profiles, as noted in Chapters 1 and 2. Furthermore, as suggested in Chapter 3, there is a growing desire to find new and innovative solutions to the crime control problem, in particular, to find something which will add to the certainty of the decisions made and, therefore, reducing risk (Ericson and Haggerty 1997).

This, in turn, will create further demands on police to manage the data this produces, such that much of their work is spent on bureaucracy and paperwork. Having more efficient technologies creates more data, which creates a demand for more experts to be able to manage the increased data that is produced (Ericson and Haggerty 1997). Thus, the use of technology in their day-to-day activities limits the choices officers can make in a given situation, cutting down on the need to act intuitively, in effect de-skilling the officers. Again, as Ericson and Shearing (1986) suggest, it is the science and technology which is dictating and shaping the work detectives will do.

Others, too, have noted this effect, noting that each successful forensic advance creates more crime control opportunities. McCartney (2006) argues that police powers have been extended in line with science and technology which, she suggests, raises the question of whether it is the technology which is dictating the development of the law and police powers, rather than being dictated by police need. Taking this view, the law is made to fit around what can be achieved with science and technology. She contends:

The culture of scientism however has resulted in heightened expectations in the ability of science to provide solutions to problems with forensic science increasingly asked to answer ‘whodunnit?’ (along with ‘howdunnit?’) questions posed by the criminal justice system (McCartney 2006 p. 212).

This is never more so than with cold case investigations.

p. 54

Williams and Johnson (2008 p. 360) similarly argue that technological developments have been shaped by the practical requirements of policing, and policing in turn is shaped by the use of these technologies. With each development, more uses are found and, as more uses are found, more developments and investments are made. Having the new technologies provides a way of solving crime, and the police continue to find new problems to which it can be applied (Williams and Johnson 2008; Innes and Clarke 2009). Consequently, we begin to see a trend in developments in policing based on science and technology which can also be seen in relation to the development of cold case reviews.

Yet the effectiveness of DNA in investigations is open to debate. Williams and Johnson (2008) contend that it is hard to know what the value of DNA is to detections without also studying the decision making and communications inherent within these investigations. Indeed, it has been noted by many, including Ericson (1993), McCartney (2006), and Brodeur (2010), who each note that it is rarely a factor in identifications and detections. In 2002 Her Majesty's Inspectorate of Constabularies (HMIC) found that forces have difficulty turning identifications into detections. Published audits consistently highlight a poor knowledge of forensic science in the police service, including in homicide investigations (Fraser 2007 p. 398) and forensics has been identified as one of the main areas of failure in homicide reviews (Nicol et al. 2004). As such, the small number of cases where DNA successfully helped in detections should not be used as a generalization for its universal value (McCartney 2006). Nevertheless, the success of cold case reviews often hinges on the availability of forensic opportunities to be pursued and it is the availability of DNA profiles that have been instrumental to their success.

There have also been difficulties identified in using DNA in court, especially the complexities of understanding the probability matches, as well as the lack of understanding by judges and lawyers of DNA, and how the statistics are presented in court (Lynch and McNally 2003; McCartney 2006). Nevertheless, the courts appear to be readily accepting of DNA evidence, with the credibility and seeming authority of forensic science continuing to grow (Roberts and Willmore 1993; Williams and Johnson 2008). As Williams and Johnson (2008) suggest, it becomes a self-fulfilling prophecy, as juries will accept the hype of forensic science, and so it continues to go unchallenged in the courts. Juries are, it seems, impressed with expert opinion and scientific procedures and technology (Brodeur 2010 p. 218). Nevertheless, it is not the panacea often imagined.

p. 55 The use of science in an investigation is only as good as the understanding officers have as to its use (McCartney 2006). From in-depth interviews with detectives and prominent figures in the use of forensic science, the interviewees in McCartney's study reiterated that relying on science can blind officers to what else needs to happen in an investigation, and that old-fashioned detective work is also needed to put science to good use (McCartney 2006 pp. 34–5). Moreover, misunderstanding DNA might lead to being unable to find an offender, so good detective skills are also needed to identify a suspect (McCartney 2006 p. 35). This interplay between advances in forensic techniques and technologies and the use of traditional investigative skills in advancing investigations will become apparent when considering the success of cold case reviews in the coming chapters. As will be seen, the forensic science provides the investigative lead by identifying a potential suspect, but it is the traditional detective skills that are required to turn that into a conviction.

Ultimately, the value of evidence will depend on what is collected at the crime scene, which will depend on what the police and scenes of crime officers know to collect. There are, therefore, many problems linked to the use of DNA, and in subsequent cold case reviews. Detectives have in the past collected contact trace materials based on the analysis that could be done at that time, and so samples may not have been collected that could be analysed today, with the new techniques available (Lord 2005). Similarly the way in which these samples were collected and stored also means there is the risk of cross-contamination and over time samples will degrade. Furthermore, the methods previously used would take up much of the material sample available, so often there is little left to analyse, and the storage of the evidence may mean the evidence has deteriorated to such an extent that DNA profiles cannot be properly compiled (Lord 2005). Forensic science has also been shown to have played a role in several miscarriages of justice. Major issues with the forensic interpretations resulted in the so-called Birmingham Six miscarriage of justice, and that of the Maguire Seven. Both cases showed that forensic science is not as clear-cut as previously thought (Williams and Johnson 2008). In addition, the quality of DNA evidence can be affected by human error, in not correctly following procedures, in innocently contaminating samples during the evidential process, and in misidentification when two samples are confirmed as originating from the same source when they are not (Smith and Bond 2015 pp. 27 and 28).

p. 56 Context is important when trying to understand the scientific value of forensic evidence. The scientist provides an account based on their interpretation of what they know of the case, itself based on what they have been told by the officer's concerned (Innes 2007). As such, the results achieved may not be reliable, particularly if based on incorrect assumptions to start with. It is often when the police have a suspect in mind that they will then send items to the laboratory for the scientist to confirm their hypothesis of the guilt of the suspect (Roberts and Willmore 1993). As such, and as the police pay a fee for each submission, officers will be selective with what is sent for submission. In addition, there are often disputes between scientists on how significant the results are, and the reliability and applicability of the tests conducted

(Roberts and Willmore 1993 p. 38; Williams and Johnson 2008). There is a risk that the scientist will filter out what is included in a report, based on what they think the courts will want to see, and so key facts may be missing which, if they point to the guilt or innocence of a suspect, is hugely problematic (Roberts and Willmore 1993).

Understanding science and the role of expertise can be linked to the sociology of scientific knowledge, which examines how scientific practice is created by the social context within which it is implemented (Myers 1992). Science is seen as objective and neutral yet it must be considered within sociological constructions (McCartney 2006). Science is a social process influenced by cultural factors and values of the time (Barnes et al. 1996). In this view, scientific knowledge is influenced by social beliefs and factors which vary relative to social conditions (Fine 1996), and can be influenced by political factors and ideologies (Yearley 1994). Latour and Woolgar (1986), sharing their ethnographic account of a science laboratory, contend that scientific facts are constructed by the actors and factors involved, as part of a series of social processes. For them scientific facts are constructed and negotiated through interpretative processes. Others also suggest that science is a social construction and so not the objective certainty so often perceived (Innes 2007). Jasanoff (2004) suggests that the forensic science is co-produced with the police. The expertise of the scientist is often used by police to validate the opinions they have already formed and to enhance their understanding of what happened, she contends, as do Roberts and Willmore (1993). Furthermore, in considering scientific evidence in court, Jasanoff (1992) posits science should be challenged more. When it is challenged, she notes, it is often done so on the rigours of the testing process, which suggests the facts are open to the interpretations of the scientific techniques. Accordingly, the rules for the validity of the evidence in court are met, but this does not mean the evidence is reliable (Jasanoff 1992).

p. 57

Nevertheless, forensic science is still often seen as the panacea to solving crimes and there is a reliance on forensic science in cold case review successes, in particular to help to identify a previously unknown offender, as we shall see in the coming chapters.

This book will make clear that there is a reliance on forensic science in cold case reviews, but that investigative skills and the dogged determination of a review team to progress cold cases are also necessary. This echoes what has been written elsewhere in relation to cold case investigations.

Cold Case Investigations Literature

There has been little written on cold case reviews and that which has tends to fall into the ‘true crime’ genre, depicting sensational unsolved murders; there are numerous books focusing on individual high-profile unsolved murder cases,¹ not to mention the myriad books and televised documentaries which attempt to identify Jack the Ripper, by authors such as Donald Rumbelow, James Tully, and Patricia Cornwall, with each providing a different rationale for their conclusions as to the identity of Jack the Ripper. The list is endless, and they seemingly provide an endless fascination for the public.

Gourevitch (2002) provided an American account of a true life cold case, recounting the dogged determination that finally enabled homicide detective Andy Rosenzweig to track down and apprehend an offender who had committed two murders thirty years previously. The account depicts Rosenzweig as a diligent and dedicated officer who would not retire until the killer was brought to justice, or was conclusively confirmed to have died, despite the fact that the file had been officially closed. This broadly reflects the views of many detectives who do not want to give up on obtaining justice for victims. In fact, one of the interviewees in this study spoke of the importance of being able to return to speak to the mother of a victim whose investigation had gone cold, a crime he had originally investigated many years previously. He was finally able to tell her that they had caught her daughter’s murderer, which was all the more poignant as the victim’s mother died shortly after.

p. 58

In thinking about the emotional aspects of these investigations, Horn’s (2006) ethnographic account of the New York City cold case squad describes how unsolved murders are investigated in New York, depicting the bureaucratic aspects of this form of policing, and how the cold case detectives cope with the work they are faced with. Accounts such as this sit alongside articles from the Federal Bureau of Investigations (FBI) and the National Institute for Justice (NIJ) sharing best practice advice for cold case investigators. Indeed, there are a number of American cold case investigation procedural accounts providing procedural guidance on how investigators should conduct cold case investigations in the United States.²

In the UK only a small number of authors present something similar, albeit not to the extent of the American accounts. Detective Chief Superintendent Steve Wilkins with journalist Jonathan Hill depict the cold case investigation into two double murders in Pembrokeshire, Wales. In his account, Wilkins denotes the painstaking detective work required to finally bring this case to a conclusion, noting the value of using a team of experts in the cold case investigation and the crucial part forensic science played in finally connecting the offender, John William Cooper, to the victims.

p. 59 Roach and Pease (2008) set out to understand detective decision making by studying cold case reviews after an offender is finally caught years after the crimes took place, in cases they term 'long lapse detections'. In so doing, they assessed what had originally prevented the offender from being caught at the time and what could be learned from this for future investigations. The authors note the current reliance on science and again suggest that opportunities to progress cases may diminish without further major scientific breakthroughs, such as occurred with the discovery of the low copy number (LCN) profiling technique.

Martyn Lloyd-Evans and Paul Bethnall outline how South Wales Police review unsolved murders and stranger rapes, noting their successes and offering other review teams advice on how to conduct cold case homicide and stranger rape reviews using new forensic techniques and old crime scene samples. They conclude by suggesting that 'Police forces should not be asking "can we afford to do this?" but should ask themselves can we afford not to do it' (Lloyd-Evans and Bethnall 2009 p. 16). At a time of increasing budget cuts, it is a particularly pertinent question. Related to this, Allsop (2013) provides an account of the 'vocabularies of motive' put forward by cold case investigators to justify resources being expended on cold case reviews in an age of austerity. Four justifications for continuing cold case reviews were expended to warrant them. It was found that investigators considered they were necessary for the victims, for justice, because cold case reviews can be conducted with advances in forensic science, and to prevent repeat offending.

Following 'The Troubles' in Northern Ireland, the then Chief Constable of the Police Service Northern Ireland, Sir Hugh Orde, wrote, 'Policing the Past to Police the Future', documenting how resources have been allocated to investigate these murders in order to provide closure to the families of the victims killed during the political infighting. Indeed, the Historical Enquiry Team (HET) was set up to manage these investigations and provide answers for the families of 1,800 victims of 'The Troubles' whose murders remain unsolved, symbolizing the need for victims to receive closure despite the time that has passed. As he states, it is only in understanding the past that we can better police in the future (Orde 2006). Nevertheless, many victims did not get the answers they required.

p. 60 A study by Innes and Clarke (2009) on cold case murder review conferences found a reverence to forensic science to help in the identification of potential suspects in long-term unsolved homicides. Their study also notes the input of various experts brought together to generate potential new lines of enquiry. For Innes and Clarke (2009), cold case homicides were 'placed under new descriptions', with the original definition of what happened 'challenged and revised', and so changing how these crimes are subsequently remembered and understood. In this sense, they suggest social control is enacted where previous definitions of the crime are rewritten, enabling a new narrative of what happened to be constructed, and therefore new suspects to be identified and pursued. In their study, a cold case murder was finally solved utilizing the expertise of psychologists and forensic opportunities, and so noting the value of these combined teams (Innes and Clarke 2009).

Conclusion

To conclude this chapter, it has become apparent from the investigations literature that the rhetoric presented of criminal investigations is far removed from the reality of investigations. This rhetoric is, however, important for how social control and social order is becoming envisioned. Nevertheless, it was noted that investigations are bureaucratic with detectives perceived as case processing workers, and their work routine and mundane. In contrast, the entrepreneurial aspects of detective work have been shown, where entrepreneurial and presentational skills are enacted in detecting crime, and in compiling the paperwork to account for actions taken. Finally, it was considered that for the most part detective work is information and knowledge work, which requires legal knowledge as they construct cases for the prosecution, based on narratives formed of the crime. The concept of the scientification of policing has also been set out.

The development of cold case reviews can be considered to be a further development in the scientification of policing. That is, where more usages are found for science and technology, and as these uses grow, so more opportunities are found for their use. The chapter that follows will pick up on the concept of the scientification of policing as I document the development of a systematic process of drawing on advances in forensic science to detect long-term unsolved crimes, from an initial ad-hoc process of reviewing unsolved murders to the introduction of two national cold case operations, Operation Advance focusing on unsolved stranger rapes, and Operation Stealth focusing on unsolved murders. Again, we will see the pivotal role forensic DNA profiling plays in cold case reviews.

Notes

- 1 See, for example, *Cold Cases* by Charlotte Greig (2008), *More Unsolved Murders* by Jim Morris (2012), and *Great Unsolved Crimes: Getting Away With Murder* by Rodney Castleden (2011). There are also numerous books depicting unsolved homicides from different parts of the country especially unsolved homicides committed in the London area.
- 2 See, for example, Walton 2006; Pettem 2012; Adcock and Stein 2014.



CHAPTER

7 Organizing the Organizational Memory

Cheryl Allsop

<https://doi.org/10.1093/oso/9780198747451.003.0007> Pages 104–131

Published: February 2018

Abstract

This chapter concerns ‘organizing the organizational memory’, that is, the fundamental processes, practices, and procedures required to enable cold case reviews to take place. The advances in DNA profiling techniques and technologies have created a growth of opportunities for reviewing cold cases, and in this chapter it will become clear how this investigative potential has created new problems requiring the development of a system of working before a review can take place, suggesting the need to look forward and back in the review process. What emerges is a process of ‘back engineering’ and forward planning, a collection of routine activities centred on finding opportunities to identify and connect suspects to the unsolved crimes revealing the realities of such work, which is often mundane, far from the gloss and glamour depicted by media representations. The challenges to achieving a successful detection are also laid out.

Keywords: back-engineering, forward planning, rhetoric v reality, obstacles to success, detective skills, routine processes back-engineering, forward planning, rhetoric v reality, obstacles to success, detective skills, routine processes

Subject: Criminal Law, Criminology and Criminal Justice

Introduction

Chapter 6 documented how both twenty-eight-day ongoing investigation progress reviews and cold case reviews are largely processed. This chapter is concerned with ‘organizing the organizational memory’, that is, the fundamental processes, practices and procedures required to enable cold case reviews to take place. The advances in DNA profiling techniques and technologies have created a growth of opportunities for reviewing cold cases. This investigative potential has, however, created new problems requiring the development of a system of working before a review can take place, suggesting the need to look forward and back in the review process, in so doing considering what is required to progress a cold case and what may be possible in the future and, therefore, what action to take, based on these considerations.

What emerges is a process of ‘back engineering’ and forward planning, a collection of routine activities centred on finding opportunities to identify and connect suspects to the unsolved crimes. Where other research on investigations suggests that investigations are a form of case construction, constructing cases for the prosecution (McConville et al. 1991; Innes 2003), the back engineering noted here is quite literally building cases at the most basic of levels. This necessarily involves locating and collating the relevant paperwork, exhibits, information, knowledge, and data from across the force and externally, relevant to these historic crimes, including locating retired personnel from the original investigations. They too, would then also search their own homes for any data they had retained from the investigations. Overall, this reveals the realities of such work, which is, in the main routine, methodical, incremental, painstaking

but necessary, and most often mundane; far from the gloss and glamour depicted by media representations. It is with this mundane reality that the chapter now begins.

Routine Activities

Much of the literature on policing documents the routine nature of the activities conducted (Ericson 1982, 1993; Innes 2003). Indeed, Ericson (1993) made the following observation.

An impression generated from observing detective shift activity was that with very few exceptions all case investigation was a matter of routine and largely mundane (Ericson 1993 p. 51).

The same can also be said of cold case reviews. This is illustrated by the comments from one of the review team, a serving detective constable (DC), who described the difference between public perceptions of their work and the reality of it:

Yeah, I think cold cases is, erm, I think it's like anything with the police force, I think it's very much shaped by the media and I think people's ideas of, you know, CSI its always kind of CSI and Waking the Dead, and that we're all sat there with, you know, special computer programmes which magically come up with things and the reality of it is that it is a lot more mundane and dull than that really and that's probably why our office is like it is, to counteract the mundaity [sic], whatever the word is, mundaneaty [sic], anyway, you know, the tedious side of it.

This 'ordinariness' can best be illustrated by briefly outlining the day-to-day activities of the team as observed during the fieldwork. It is predominantly office based, and centres on reviewing papers, files and electronic systems, report writing, computer searches, updating police information systems, and reconstructing case files in a cyclic process of forensic submissions and recording of results, files reviewed, updated, and filed. So while Manning (1997) suggested that the primary impact of technology on policing was to facilitate or reduce time expended in traditional routines or procedures, in the case of cold case reviews, technology has, in fact, created more work in routine procedures, especially in tracking down and sifting through paperwork from the original investigations; but as we shall see it has, however, been pivotal to their success.

p. 106 Rarely do the team leave the office unless a suspect or witnesses have been identified, or to meet with investigating officers as part of the twenty-eight-day progress review process. Day to day, files will be read and reviewed in between the twenty-eight-day progress reviews and reports will be produced to give an up-to-date position on actions taken in the review. As in many other offices, discussions will take place, both personal and work related, telephone calls made and received, courses attended and meetings held, pocket notebooks updated, and personal development reviews updated. This work would occasionally be interrupted by detectives seeking advice about and sharing information on current investigations.

The actions completed as part of a cold case review would depend on the particular aspects of the crime. Nevertheless, the initial task, as outlined in Chapter 6, was to locate the paperwork and exhibits still held by the force. Once the paperwork and exhibits had been located, the paperwork would be read and reviewed for potential forensic opportunities. In particular, one of the first things a review officer must do is to read all of the paperwork to understand what information is available and to try to establish what is missing from the files and how the missing pieces can be obtained.

This methodical process of retrieval would continue as it became necessary to find other relevant items for the review and, with each lead or potential line of enquiry emerging, the relevant paperwork that relates to it needed to be found. It is a monotonous process and very much a paper exercise, with no immediate urgency to the process. Cold case reviews are conducted in 'slow' time without the cut and thrust of live investigations, painstaking and without interest until the developments start to come in, and so they are seen as less of a challenge and less exciting, until, of course, a promising lead is found and there is the potential to progress a case. That is not to say that conducting cold case reviews in 'slow' time, rather than the quicker pace required in a live investigation, is a detriment to them; it is not, as will be documented presently. That said, a discussion with a retired senior detective, now a regional adviser with the National Crime Agency, highlighted the fact that from a police point of view cold case investigations are not seen as being as exciting as current live investigations. Conducting cold case reviews in slow time does, of course,

p. 107 mean that if other ↪ more pressing priorities come up, the case gets put on the ‘back burner’ for another time.

In reviewing cold cases the team set their pace of work, in deciding what to review and when, what leads to pursue and when, and what to document and when. In addition, any forensic submissions made from the cold cases would be put on the ‘back burner’ during busy times, in favour of the more pressing forensic submissions which required more immediate responses for live major crime investigations, resulting in further delays in the cold cases. As Ericson (1993) suggested, for the detectives he studied there was ‘rarely a feeling that any matter was pressing’ (Ericson 1993 p. 51). For cold case reviews this is especially true. As I was told by one of the review team, a retired detective sergeant (DS), ‘well a cold case is basically that, a cold case, is well pick it up when you can there is no urgency in a cold case.’

These crimes are already several years old and so there was no urgency to conduct or complete the reviews. The team do not have the pressure of obtaining a result in any of the cases. There was no pressure from the media, the public, the victim, or victims’ families. That said, in a number of the unsolved murder case files the families had written requesting updates on the cases which related to their loved ones. These relatives would receive a response but not necessarily any additional action on the cold cases. There were no formal targets, or measures of success in place for detecting the cold cases, which is surprising given the focus across the police service for demonstrating efficient, effective, and economical ways of working.

Despite these routine activities there were, nonetheless, times when the team were lifted from the paper-based routine administrative activities to what was referred to by one member of the team as ‘proper policing’. This was when potential suspects were identified in a cold case stranger rape and an arrest was likely to be made, as will be discussed next.

‘Real Policing’: Picking Up the Pace!

p. 108 As has already been noted, cold case reviews follow the format of systematically locating and reviewing the necessary documents to conduct what can best be described as cerebral desk-based paper exercises. Routine activities centred on identifying and progressing, in particular, forensic opportunities from the case files, ↪ writing reports, and updating the files again. However, during the observational field work, insight from a success in one of the stranger rape reviews observed suggests that review work can be seen as more than just this, where the team conducted what they referred to as ‘proper policing’. That is, in planning when and how to locate and arrest a suspect and locate the key witnesses, to bring them all back to the local police station at the same time to prevent any potential collusion of accounts. For the review team the opportunity to track down and locate the suspect and important witnesses using their investigative skills and knowhow, focused on planning how to do so without these people becoming aware of it until the point of arrest, was considered to be proper police work.

The case concerned the alleged rape of a sixteen-year-old girl by a man who had been celebrating his stag party. The pace and momentum of the team’s work picked up when the suspect had been identified following a forensic match to a man who had been arrested for a domestic assault. This person had already been identified in the original investigation, but the victim had not been believed, and so the offender was not pursued. The forensic ‘hit’ provided the review team with the renewed opportunity to reopen the case. As the review progressed, the time came to track down the suspect and several witnesses. At this point I observed excitement growing, with one member of the team, a serving DC, clapping delightedly, ‘it’s just like doing proper policing’. This was as they collected their equipment and uniforms for the serving officers and gathered together what they needed to locate and detain the men, coordinating their times and locations as they discussed their strategy, and ensuring everyone was ready for the task, which was to begin early the next morning. The following comments from a retired DS now working in the review team suggest why these activities were considered to be more exciting and more akin to popular ideas of what ‘proper’ policing is.

We’re like kids when we go out, we’re like children cos, especially on real police work, because on that job for instance I mean I went undercover, you know, we were parked up, we were watching somebody parked up, I decided we needed to look at the back so I went out and had a walk round and had a wander about, talked to neighbours and had a chat, done all that on two or three addresses talked to neighbours and done police work if you like. And it is like that especially when

you get a result as we did, so it's not fun, fun's the wrong word for it, it's just ↵ doing what you know best and the potential for the result was there as well which makes it good.

It is the activities most like these that the currently serving and retired officers deem to be the most interesting. With a cold case they have time to plan their arrest without the pressure that detectives planning an arrest in a live investigation would be under. They are not under the media spotlight and there is no immediate need to apprehend the suspect, who at the time was unaware of the review or that he was a suspect. The suspect and the witnesses were not on their guard or expecting the police to be looking for them, given the time that had passed between the crime and the review. So, for the review team the prospect of a 'result', charging a suspect with a cold case rape, made the work suddenly seem more exciting and more worthwhile. And, of course, when an offender in a cold case murder was identified through familial DNA it was important to charge and arrest him quickly before he had chance to leave the country or harm himself now that he knew he had been caught. The actions noted earlier, though routine and mundane in nature, are necessary to get to this point of arrest, especially the system of 'back engineering' to get the files into order in preparation for a review. Without an effective back engineering process, few cold cases would be progressed.

However, this system of back engineering is not without problems. The next section unpicks this concept of back engineering, along with the obstacles that are faced by the review team in the process.

'Back Engineering'

The concept of 'back engineering' is perhaps best described as being the process of rebuilding case files from scratch, gathering the paperwork and exhibits still available, and obtaining information and knowledge from the original investigating officers, drawing on their 'corporate memory'. It is typified both by the case construction of the stranger rape file outlined in Chapter 6, and by the collation of boxes and bags of exhibits relating to the unsolved murders and stranger rapes, as also noted, and as visually depicted by the photographs of the paperwork amassed during investigations. It starts by thinking about what will be required to locate and ultimately prosecute a suspect and working back to ↵ locate and recreate the information and evidence required. This back engineering is necessary and evident when suspects have been identified but there are no case files available to support a prosecution and so the files are rebuilt, starting with obtaining information about the newly identified suspects and finding ways to trace them, the victims, and all the relevant personnel involved in the original investigations.

For cold case murders, in order to begin a review all the information relevant to the investigation must be collated and searched for the pertinent documents, exhibits, and data retained by the police service and other organizations especially the Forensic Science Service (FSS). Any data that has not been retained by the force must be located, and it is, for example, this process of searching computer records for the names and addresses of retired and still serving officers, doctors, forensic scientists, witnesses, and victims connected to the cases. This is part of the necessary back engineering required to rebuild the organizational memory and knowledge of these investigations. The cold case murder reviews initially began by trawling through numerous boxes of information and data from the original investigations, which, as previously depicted, is vast. It is quite literally 'building' a case, with differences observed between the cold case murder reviews and the cold case stranger rape reviews. In the coming chapters this back engineering of cold case murder files will become apparent at different stages of the cold case review processes. For the stranger rapes there was much less information available to begin with, which reflects the different resources allocated to, and information gathered from, the investigation of these crimes, and so these particular cold case investigations serve to demonstrate the concept of back engineering especially well.

Back Engineering: Cold Case Stranger Rape Reviews

p. 111 This process of 'back engineering' is exemplified by the following case study example of a cold case stranger rape review, which demonstrates how a cold case stranger rape was progressed from identifying an offender to concluding with a conviction, despite having almost no information available from the original investigation at the start of the cold case review. In this case a young woman was raped in the city centre late one evening in 1985, before the National DNA Database (NDNAD). Despite an extensive investigation at the time, including 758 actions, 270 statements taken, and an undercover operation, the offender was not identified. There were no sightings of the victim, the offender, or his vehicle at any time to put the victim and suspect together, before, during, or after the attack and there were no CCTV, mobile phone technologies, or Automated Number Plate Recognition (ANPR) technologies at that time, connecting the offender to the crime and the case eventually went cold.

However, after a crime scene sample was selected for analysis as part of Operation Advance (see Chapter 5) the FSS stated that they had obtained a match from a swab taken from the victim. This related to semen staining obtained from underwear retained from the original investigation. At that time, it was examined using DNA testing available at the time, but no match was found. It was then examined more recently using advanced DNA testing, low copy number (LCN) DNA profiling (see Chapter 2), and an almost complete profile was obtained. This profile was speculatively searched against the NDNAD and found to match a profile already on the database, and so provided the review team with the potential identity of the offender.

As is common with many of the stranger rape cold cases, much of the paperwork was missing. Accordingly, the review officer began rebuilding the case, putting together a log of enquiries based on the paperwork the review team had available. Extensive attempts to locate all the paperwork, including a search of the FSS Archives in Birmingham, were made. The Home Office Laboratory Submissions Form was retrieved, which held the details of the officers involved at the time of the original offence, the victim, and the doctor. These officers were then traced through force records. Pocket notebooks were obtained from them and the officers were asked to recall any information they might remember of the offence. Attempts were made to trace the doctor, starting with the last known practice the doctor worked at, to obtain copies of any notes they might still have held. Gradually the file was then rebuilt sufficiently to secure a prosecution of the newly identified offender.

p. 112 As a suspect had been identified, an intelligence package, including information from the Police National Computer (PNC) was put together on both the suspect and the victim. Corporate Communications were contacted for help in obtaining media coverage from the original offence, and press releases, details of the publicity generated, appeal material, Crime Stopper reports, and media reports were collated. At this time care was taken not to generate any external publicity in connection with the case, as the victim was unaware of the review taking place. Usually victims will only be contacted when a prosecution is likely and imminent. Once the victim was actively engaged in the review, publicity could then be used to trace any witnesses to the crime.

The victim had moved away from the area and so locating her was problematic. Initial enquiries were made via the general records office and, as it was known that the victim had been a student at the time, the local university was contacted who were able to provide some information about where she might work. A sample was required from the victim so that the FSS could separate her profile from the mixed profile held, to leave one unidentified profile which could then be subsequently shown to be from the offender. It was important to arrange for a police officer to contact the victim, take the sample, and then send it by special delivery to the FSS for storage and examination, which had to be done within five days before it would need to be stored in the freezer. So, unusually for a cold case, time was of the essence.

This meant that the victim had to be told of the review, the potential prosecution, and the requirement for her to provide the forensic sample. The victim agreed to support a prosecution and provide the necessary sample. Once informed of the review, the victim was kept abreast of the progress of the investigation and a video interview was completed with her. The Crown Prosecution Service (CPS) was consulted about the case, and a statement obtained from the forensic scientist setting out the probability ratio provided on the semen sample, which in this case was in the order of 1 in 360,000. This is important for putting before a jury, as it sets out the chances of the sample relating to someone else. Further historical research was conducted on the suspect, including his location at the time of the offence, and a photograph showing his appearance

when the offence took place was also obtained. This is useful to show to the jury so they can see how he would have fitted the description from the time, as many years later he would obviously look quite different.

p. 113 The review officer also made contact with the original police surgeon for any paperwork they might possess. Details were input onto the Home Office Large Major Enquiry System (HOLMES). ↪ A search was made with the photographic department for photographs and negatives from 1985, and photographs of the victim and her injuries were obtained, although other photographs and negatives had been destroyed, not an uncommon finding in cold case reviews. The suspect was also interviewed about the offence, and it was important to refresh his memory of the time, given the offence took place many years previously. To do this, events from around the time of the attack were used, for example, he was reminded of the Moscow Olympics, the SAS storming the Iranian embassy, and films showing at that time. Plans were obtained for what the area where the attack took place looked like at the time. All of this helps when putting the case before a jury. Information was also included within the file of potentially linked offences the same offender may have committed.

Once the case reached the prosecution stage the reviewing officer had to try to put the suspect at the crime scene, as per the evidential rules in *R v Lashley*, that is, corroborating the DNA evidence by showing that at the material time the suspect could have been in the area, to be able to have committed the crime. All relevant witnesses from the time also had to be traced. Bearing in mind the time that has passed, this can be problematic. Nevertheless, this involved a search of electronic records including police records, public records, and ancestry tracing websites. Appeals were also made for potential witnesses to come forward. Statements were obtained from the witnesses who the victim had first disclosed the rape to.

On the lead up to a prosecution further work has to take place to prepare the file for the prosecution. As noted in Chapter 4, criminal investigations are often considered to be case constructions (McConville et al. 1991; Maguire and Norris 1992; Ericson 1993; Innes 2003) and this is also true of cold case reviews. (Indeed, cold cases have to be literally constructed, not just for the prosecution, but to even begin the review.) All the items, paperwork, scientific tests, and notes connected to the case, whether subsequently used or not, had to be disclosed to the defence. Bear in mind that as this case was in 1985, the rules of law that applied at the time had to be adhered to, so the defence had to be given access to all possibly relevant prosecution material rather than simply the disclosure of material which might reasonably be capable of undermining the case p. 114 for the prosecution or assisting the defence case which came into force under the Criminal Procedure and Investigations Act 1996 (Owusu-Bempah 2013). It was, therefore, necessary to prepare everything for disclosure.

Continuity also has to be shown for the forensic exhibits on which the offender identification was made. For the prosecution, it was crucial to show that the sample could not have come from any other source in any other way. As such, it was important to confirm how the semen got from the original exhibit, the victim's underwear, to the slide at the FSS, to show that the forensic sample related to the offender. Police officers who transported the exhibits to the FSS laboratory during the original investigation were asked to detail what they did at the time with these samples, or what their usual practice would be in these circumstances if they could not remember the specific details of the case. In cases such as this, due to the passage of time, these officers will often refresh their memories using their pocket notebooks, or other official records, such as the doctor's notes or forms from the FSS, as it is vital that the continuity of the exhibits can be shown from the crime scene to the court.

This back engineering process was, therefore, vital to the success of the review, as was having the investigative skills and the perseverance to track down everyone involved. While we might consider the police to be 'all knowing', there is no systematic way of retaining all of the necessary documentation and data required to progress these cases and so the review team must go back to basics. Telephoning retired officers, asking them to search their homes for any documents they might still have, asking them for the names and contact details of others who may be able to help, following up each lead and lines of enquiry to gather together the necessary information required to progress a case, and, as each lead is followed up, the paperwork is updated, and so it continues until the case file is constructed for the prosecution. At the other end of the scale legal knowledge is also required: to know what is needed to progress to a prosecution, to know about the rules of evidence, how to avoid abuse of process—which could be a particular problem given the time that has passed and therefore the opportunities the defence barrister would get to challenge and counter test the evidence relied upon, the rules regarding continuity of exhibits, what statements would be required from the police officers and scientists concerned, and which document that they remember or how

p. 115 they have refreshed their memory. The review team also need to know what the acceptable practice is when
 ↳ obtaining swabs to make the link between the crime scene and the offender. It is vital that the CPS can show in court the continuity of any profiles obtained from the crime scene to the courtroom and the integrity of the profile used to identify the offender.

Consequently, it is necessary for the team to be able to obtain the paperwork and exhibits from the original investigation. Furthermore, it is necessary to locate the original officers involved in the investigation to ascertain what they remember of the crime, details of anyone they suspected of the crime but had not documented their suspicions, and anything they remembered about the victim. This 'corporate memory' is both what the officers from the time can remember and what items they still have available, especially their pocket notebooks, which document their actions and activities from the time. If a murder investigation is documented in the notebooks, they must be retained for 100 years. In fact, these notebooks should be handed in when officers retire or leave the force, but in practice almost all of the officers contacted about an old investigation were still in possession of their notebooks. Among other things, officers had retained wanted posters, video tapes, and media coverage relating to unsolved murders, and as detectives retire it is not uncommon for them to retrieve boxes of files that they have retained which they then pass to the review team.

Thus, this process of back engineering, including gathering paperwork, exhibits, and corporate memory, is pivotal for the success of cold case reviews but, unfortunately, in many of the cold cases vital exhibits have vanished and paperwork has been destroyed, or is lost, or has fallen apart. Lost exhibits are a major obstacle to success in cold case reviews and many have been lost or destroyed by the police and the FSS. This problem is highlighted by the concern one of the review team, a retired DS, shared with me of a situation where a man confessed to arson, along with a number of burglaries. As the police had destroyed all of the paperwork and purged the computer systems of all records, there was nothing available to enable officers to pursue the offence. The offender could not be charged even though he had confessed. In this force area, had all their case files been secure and tidy, even without live witnesses, they would potentially be able to solve more cases.

In the past, items were often destroyed or returned to their owners during the original investigation. In one murder investigation the jacket worn by the victim at the time of her murder was returned back to the friend
 p. 116 who owned the jacket, and so ↳ lost any chance to obtain trace material such as fibres or hairs from it. Now it has been said that the police service would not throw away exhibits or paperwork, given the future potential they might yield, but an article in *Police Review* suggests this might not always be the case. It has been put forward that the destruction of items may again become a problem for the police, due to a lack of storage facilities being available. This is despite the obvious value of retaining items, as the following from the Secretary of the National Detective Forum points out.

If you think about it, a piece of clothing found at a crime scene 20 or 30 years ago can suddenly yield DNA after the 3rd or 4th time of being tested because the processes are becoming more advanced. Who is to say what evidence property is going to give in the future? (Quoted from Dennis Weeks National Detectives Forum Secretary *Police Review* 28 January 2011).

It is not just police records that are destroyed but other agencies too, for example, prison records, the Criminal Injuries Compensation Authority (CICA), and other agencies whose information may be helpful in a cold case review, meaning that vital pieces of the investigation are lost. Sometimes the puzzle can be solved without this information and in other cases these missing documents may be the key to linking the suspect to the crime and without this vital piece of information the investigation remains unsolved.

Clearly, the passage of time and missing items are going to be a problem for these reviews unless a systematic process of retrieval and retention is in place and this will be returned to presently. This, though, is not the only challenge faced by review teams to achieve a successful outcome in cold case reviews, as the next section will show. It begins by briefly considering what success might be in a cold case review, before outlining some of the challenges to success. Issues in relation to forensic science in cold case reviews are especially pertinent and so will be considered separately in Chapter 8.

'Success' in Cold Case Reviews

p. 117 As has been documented by others, including Maguire and Norris (1992), Ericson (1993), and Manning (1997), investigative success is often measured by 'clear-up' rates, but for cold case reviews it can be about more than just that. In cold case stranger rape reviews in particular, a review provides the police service with the opportunity to rebuild the victim's trust in the criminal justice system. Moreover, should the victim wish to proceed, they can be offered the services of an independent sexual assault adviser, Sexual Assault Referral Centres, Victim Support, and any other appropriate support systems that victims of rape would receive in a current rape investigation. One victim of a stranger rape was rehoused with help from the review team. The victim still lived in the area where the attack took place, and had been unable to move on with her life. The review team, in conjunction with Social Services, arranged to move the victim out of the area. The success here was twofold—one in securing a conviction and the other in supporting the victim and helping her to move away from the area and move forward with her life.

It should, therefore, be considered, when thinking about the value of cold case reviews, that achievements such as these could also be deemed to be a success. Even if the offender had not been convicted, the victim had the benefit of the support and assistance given to move away from the area where the crime happened. Indeed, the review officer involved in this case commented that the offender only received an eighteen-month prison sentence, and so she considered it a greater success that she had been instrumental in helping the victim move away and move on with her life. Others, too, suggested that this victim care was a crucial aspect of their work, and being able to help them to rebuild their lives, and in some cases rebuild their trust in the police, was a success for them. As will be noted shortly, this is also pivotal to the progression of a case.

What was also considered to be a success in cold case reviews, both murder and stranger rapes, was in being able to move a case forward incrementally, such that any future opportunities or investigative leads might then be capitalized on, as the following comments from the detective chief inspector (DCI) leading the team suggest.

p. 118 Although we haven't had any successes, there are, we have managed to get some profiles, partial profiles, from some Touch DNA. Now whether that is the offenders or someone that was involved in the investigation we do not know at this stage, but we've certainly got three cases where we have a profile of sorts. We need to do some more work on it but, you know, it may be that those profiles belong to an offender and to establish whether or not he is an offender we need to do, as I said, some more work. Because that in itself is a success, to take it further down the line, it is a success and that is not necessarily down to us, it's down to the scientist, but obviously identifying it and being able to put those forward is.

These incremental steps are especially important when we consider the continuous cycle of reviews that take place. The murder documented in the paragraphs that follow had been reviewed in 1996, 2001, 2003, and again in 2009, and each review had centred on forensic opportunities to progress the case. The details that follow chart how each successive review, and corresponding forensic submission, has helped to advance the investigation, and enable new hypotheses to be put forward. These successive reviews, while not resulting in detection at the time, can be considered a success as they have enabled the case to be progressed, by opening up new investigative opportunities, to now being able to secure a conviction in the case over thirty years later. These incremental steps forward also demonstrate the ongoing back engineering of a murder case file and how pivotal each step has been to the ultimate conclusion.

The cold case review into the rape and murder of a teenage girl in the early 1980s illustrates this point well. The victim had spent the evening with friends and had left them at around 11 pm to walk home, but she never made it. Her body was found in the early hours of the following morning and it subsequently became apparent that she had been raped and murdered and a huge police investigation began. From the initial investigation it seemed that two people had been involved in the rape and murder. Semen samples were taken from the victim and blood was found on the pavement leading away from the body. At the time of the murder, blood grouping was the only feasible avenue to explore, to potentially implicate or eliminate suspects. Swabs containing semen were taken from the victim's mouth and vagina, and semen on the hem of her trousers had been retained by the FSS. In 1996, a Second Generation Multiplex (SGM) profile was obtained and placed on the NDNAD; however, officers at that time were unable to confirm whether all the semen found on the victim came from the same person.

p. 119 In 2003, a full DNA profile was obtained using new forensic techniques available at that time and placed on the NDNAD, and further lines of enquiry were explored, including more forensic work to improve on partial DNA profiles held, a *Crimewatch* media appeal, and familial DNA searching. As documented in Chapter 2, this is based on the fact that although the offender is not on the NDNAD, a relative may be. This opportunity does, however, also create additional work. Familial DNA searching works by creating a list of potential relatives with similar profiles to the profile held from the crime scene. This list of profiles then has to be systematically worked through to try to connect the crime location and the unknown offender to the profiles produced on the familial DNA list. At that time an offender was not identified.

During the subsequent review in 2009 the FSS advised that the swab taken from the victim's mouth could now also be upgraded, as testing had advanced sufficiently to allow for tests to be carried out on ever smaller samples. This upgrade confirmed that both sexual acts were committed by the same man. This also enabled officers to consider the timings between each act. The full DNA profile from the semen matched a partial profile from the blood and enabled detectives to establish that the person who had raped her had also stabbed her and had been injured in the process.

More recently, having a full DNA profile also enabled the review team to conduct mass swabbing of men already in the police system in an attempt to find a DNA match to the crime scene profile. This course of action was taken after an expert had said during a conference that in cold cases like this the offender will already be in the police system and so began the process of taking voluntary swabs from individuals who were in the police system and who had not previously given a DNA sample. Despite taking over 500 swabs no matches were found at that time. Each time a familial DNA list is produced the profiles with the greatest likelihood ratio for being a relation of the offender appear at the top of the list, referred to as 'screamers' by the review team, as they scream out for further investigation, and the top thirty profiles that appeared on the lists were investigated further. Continuing to request familial DNA searching over a number of years allowed for new profiles to appear on the list and to be able to prioritize better which ones required further investigative work.

p. 120 In 2015, when the final familial DNA list was produced and a new profile appeared on the list with a much higher likelihood ratio than the previous 'screamer' at the top of the list, it immediately became apparent to the review team that this similar match required immediate further investigation. Upon doing so a relative was identified who could have been the offender and so a swab was taken from him which ultimately matched the crime scene profiles and he was charged with and convicted of murder.

All of these actions demonstrate the back engineering required to progress these reviews and again reminds us of the mundane, methodical, and painstaking aspects of cold case reviews and the necessary incremental steps taken to progress an investigation. Given the chance that an offender may be identified in this way, it is considered that the time and money being spent exploring these opportunities is worthwhile, notwithstanding that if a relative is not on the database, or does not commit a crime where a profile is taken that might subsequently closely match that held from the crime, these offences would likely remain undetected. In the case noted above, when a match did occur after a relative of the offender committed a minor offence and had their DNA taken and loaded onto the NDNAD just before a new familial DNA search was made, the review team could then investigate this new line of enquiry further. These incremental steps forward were pivotal to this success as they have enabled new lines of enquiry and investigative opportunities to be explored, until ultimately an offender was identified and convicted over thirty years later. Without each of these incremental steps forward, in particular obtaining a full DNA profile, this offender would not have been caught. It is also true to say that without the determination of the review team to keep revisiting this investigation the conviction would not have been secured.

Relatedly, going forward towards a prosecution in this case also involved more back engineering of the case files. As noted earlier, in 1984 when this murder was committed, defendants were under no general duty to disclose their case before trial and the defence could have had access to all possibly relevant prosecution material, rather than only material which might reasonably assist the defence or could undermine the case for the prosecution, as would apply now by virtue of the Criminal Procedure and Investigations Act (CPIA) 1996 (Owusu-Bempah 2013). As initially the offender had made no comments in relation to the murder charge, all the material that had been collated during the original investigation and subsequent reviews had to be made available for the defence, as per the rules of disclosure which applied in 1984 when the murder was committed. So part of the back engineering required here was to input all of the paperwork from the original investigation and subsequent reviews on to HOLMES and prepare for disclosure. So even before

p. 121

an offender was identified, two HOLMES Indexers initially spent one day per week inputting all of the paperwork relating to this case onto HOLMES, an extremely long and drawn out process but a necessary one when the offender was ultimately identified and the case progressed to trial. This demonstrates both the back engineering required to progress an investigation and the forward planning.

In addition, as the investigating team were unaware of what the suspect's defence would be, they had to speculate as to what his likely defence arguments might be and, therefore, look for additional evidence to strengthen their case and to rebuke his defence arguments. To do so, further enquiries were made of the FSS Archives and a number of items were found which enabled further DNA 17 tests to be carried out on the samples found, which produced more profiles that related to the offender. Almost 100 extra items were found, despite the fact that the review officer had been told by the FSS that there were no further items available from this investigation. The tests completed on samples from the items now located further strengthened the case against the suspect. Spending time and resources on this investigation in this way again shows the ongoing commitment the force had to detecting this unsolved murder.

Having briefly suggested what else might be considered a successful outcome, the sections that follow will begin to explore the challenges the review team face in order to achieve success. The next section will return to the victim in stranger rapes. As noted earlier, supporting the victim in a cold case review can be considered to be a success, but engaging the victim back into the criminal justice process can also be a challenge for the review team, as will be explored next.

Challenges to Successful Stranger Rape Reviews: The Victim

p. 122 It is well documented why a victim may not wish to support a prosecution (Chambers and Miller 1983; Temkin 1997; Kelly et al. 2005; Stern 2010; Horvath et al. 2011). The investigation can be difficult for a victim, in both current investigations and ↪ cold case rape reviews; it is very intrusive and can turn the victim's life upside down when the police investigation can seem to be as traumatic as the crime itself.

In one cold case review when the original investigating officer was contacted in relation to an investigation he had previously been involved in, he suggested that the default position of officers historically was not to believe the victim. In fact, he stated that the reason he remembered the particular case was because he had believed her account, contrary to the usual default position in place at that time. For the review team this provides both opportunities and challenges. To progress the case they must engage the victim to support a prosecution. If the victim is unwilling to proceed with the investigation the case will not be progressed, unless the offender is linked to more crimes. Often victims would also say that they would only be prepared to engage with a prosecution if there were other victims who would also support the prosecution.

For the review team it was, therefore, important to rebuild the trust of the victims and to try to engage them in supporting a prosecution. This can be a difficult task when victims have moved on with their lives and do not want to be reminded of the traumatic event that had happened to them. It can be especially difficult if the police investigating the offence at the time had not properly investigated the crime and had not believed the victim.

There are also other fundamental concerns to be overcome in these cases. Before proceeding, the police need to know what the victim's account of events is, and whether they would be willing to pursue a prosecution. Contacting a victim will normally only be pursued once sufficient evidence has been built up against a suspect, and the victim is then required to enable the investigation to be progressed further. If a victim does not wish to pursue the case, the time taken to progress it up to that point will have been wasted, notwithstanding that it will still be of use if the offender offends again and the case provides additional evidence against the offender. The following example suggests why one victim of stranger rape did not want to pursue a prosecution.

p. 123 The victim alleged she had been raped in a car park in the city. She was found in a distressed state and taken to the police station by three men. At the time the alleged offender sent a text to the victim while she was at the police station. The crime was reopened when a forensic upgrade linked an offender to the crime. ↪ The victim was contacted by the review team to establish whether she wished to support a prosecution. The victim did not. She had now married and did not want her life disrupted by the investigation. She was concerned that her account would not be believed as she had given the offender her phone number, though she said that this was through fear.

For the review team this means that though a suspect has been identified he will not be pursued unless the victim changes her mind, or he is linked to another crime. Again, when considering the value of a review, it is worth considering whether this could still be a success. Having a suspect on record keeps him on the police 'radar', and the crime can potentially be used in future in the event he commits another crime. Nevertheless, for now this crime still remains unsolved.

Of course, a more fundamental challenge is to locate the victims in the first place, given the time that may have elapsed. The victim may have changed their name, their address, may no longer be alive, or may have left the country, and so locating them can be problematic. This is true of any of the witnesses to a crime.

Challenges to Successful Reviews: Witnesses

In both cold case stranger rapes and cold case murders the lack of available witnesses is also an obstacle to be overcome in the subsequent review. Locating witnesses years later can be problematic. A number of obstacles must be overcome to find them, recognizing that people move home, change jobs, change their name, leave the country, or may even have died. Even if witnesses are still alive and can be traced, issues with memory and recall also have to be considered, given the number of years that may have elapsed between the crime and the review. It would be easy for a witness or suspect to declare that they could not remember what had happened, and it would be difficult to disprove or overcome that assertion, and eyewitness testimony and recall is fallible. As humans we do not replay things in our minds exactly as they happened, and there are a number of factors that can influence what we remember, or rather what we think we remember, including our own schematic understanding of the world (Williamson 2007).

p. 124 Different witnesses will remember different things depending on how much attention they paid to the original event, what they actually saw, and the length of time that has passed since the original event and the subsequent recall of it, not to mention the fact that events will also be forgotten simply with the passage of time. So issues with memory and recall can be magnified when expecting witnesses to recall events years later. The problem with eyewitness testimony is exemplified by the following composite description of an offender from an unsolved murder file. Though it may not seem so, the various witnesses are describing the same suspect. It reads:

Witness descriptions vary from age late teens to mid-30s, hair ranges from dark afro curls, to fluffy windswept hair, to spiky dark hair and black and long at the sides. Build was described as toned, stocky or skinny. Skin descriptions vary from mix race, Puerto Rican, white, Mediterranean, white to olive skinned, Latino, dark complexion and dark skin which make credible identification difficult (Murder case file notes).

The credibility of witnesses must also be considered. A letter received by the review team from a member of the public, followed by several phone calls suggesting links between two prostitute murders in this force and another, were found to be unsubstantiated. Indeed, it was soon established that this lady was a particular problem for both forces, becoming what was described as a 'nuisance' with her constant contact. In fact, the other force concerned had to stop communicating with her.

Similarly, with changing allegiances, and witnesses providing new statements, the credibility of the new information must be carefully considered. It is necessary to establish the credibility of any witnesses who come forward with information years later, particularly if they gave a different version of events at the time of the original investigation. In the event that this happens, the credibility of the witness has to be assessed and detectives have to consider the problems that might arise if the witness had given a previous statement that directly contradicts the current one. These contradictory statements can easily be challenged by the defence and the reliability of the witness challenged. As one senior detective explained, when people change allegiance it has to be considered whether they are telling the truth now or whether they were telling the truth at the time of the original investigation, particularly if the witness is contradicting an alibi. As he said 'are there genuine reasons for the changed statement or is it a bitter ex-partner?'

p. 125 Confessional evidence and allegations made against individuals also have to be assessed to determine the credibility of them. In a number of the unsolved murders various people had confessed to the killings but, after being researched by the review team, found to be spurious. The confessions could not have been true as

the details provided in the confessions contradicted what was known about the crimes and these potential suspects could not be placed at the crime scene locations at the pivotal time.

The following case file notes from a cold case review demonstrate the difficulties in progressing a case, even when information put forward by the public seems to lead to a strong suspect. The case concerns the murder of a woman while out walking her dogs in the late 1980s. She had been found with head injuries and stab wounds. At the time of the murder there was nothing to suggest in the victim's private life that it was anything other than a random attack and there was no evidence of a sexual attack. A suspect came to police notice immediately at the time of the offence as a result of house-to-house enquiries, as he lived adjacent to the murder scene. His clothing and description were similar to that of a youth seen in the woods on the day of the murder and similar to someone seen with the victim two days before. He was seen on several occasions by the police and he gave two statements. Finally, he was interviewed at his home by two senior officers who satisfied themselves that he was not the murderer, and he ceased to be a suspect. However, he came to the notice of the police again following press coverage of the review many years later. Two different members of the public put forward his name and gave information that had not been known at the time of the original investigation. He, once again, became the main suspect but denied killing her and denied knowing her. The investigating officer states the following:

At this stage X has said nothing to convince the interview team that he is not responsible for the offence. However, he could be telling the truth and it is unfortunate that due to the amount of time that has passed, it is virtually impossible to establish the true facts. With the information available at this time forensic evidence is required in order to progress this enquiry forward. X is the main suspect but the evidence at this time is not sufficient (Murder case file notes).

p. 126 In this case there is a large amount of circumstantial evidence pointing to this suspect in that he lived near to the scene of the crime, he had asked his wife to confirm his alibi at the time, but she had subsequently retracted this, his clothing and description were similar to a male seen running away from the scene and to a male that was seen with the victim two days before the murder. It also later transpired that he had lived near the victim and had known her. He was arrested and interviewed about the murder but denied any involvement in the crime. He did admit that the statement he had made previously was untrue and he put forward a new alibi; however, the person he had claimed he was with at the time could not remember whether he was with him or not.

So, while there appeared to be strong circumstantial evidence against the suspect, it was not sufficient to charge him with the cold case. Given this, we can see why having some form of forensic evidence to connect him to the crime was required. Unfortunately, when the murder was discovered and the ambulance service arrived at the scene of the murder a blanket was put over the victim, which meant they could not now get fibres from the victim's clothing which may have helped to connect an offender with the victim. Hence, it continues to illustrate why forensic science might be relied upon in these reviews. In the case noted above, without any corroborating forensic evidence, this suspect is not being pursued further at this stage.

Similarly, the case study detailed below shows the implications to consider when what looks to be a strong lead from the public is put forward. On the twenty-fifth anniversary of a murder from the 1980s a local newspaper wrote about the murder. Following this story the BBC decided that they too wanted to publicize the unsolved murder on *Crimewatch*. After the reconstruction of the crime, a call was taken from an anonymous caller who put forward the name of a man who had allegedly made a deathbed confession. The call was originally taken by an officer from another force and subsequently transferred to the officer in charge of the cold case investigation. Due to a breakdown in communication, in which both officers thought the other had taken the relevant details, some of the crucial information was missing. The name of the caller was not taken to be able to clarify the details and the full details of the nursing home where the caller worked and the man had died were not given. However, the police did get a name and a potential location of the nursing home so further enquiries could be conducted.

p. 127 Eventually, a nursing home was traced in another part of the UK, albeit the caller was never identified at this nursing home. However, a man was traced who had the same surname as the one the caller had provided. Furthermore, a search of the NDNAD revealed that his son was a 98 per cent match to the DNA profile held from the crime scene. The force forensic scientist commented that he would 'stake his mortgage' on this man being the offender. Officers contacted the suspect's family and requested items to enable further forensic testing to take place. Two items were tested but, crucially, the results showed that this man could

not have been the offender. So even with what appears to be a promising lead, it can lead to nothing, and, importantly, there are the sensitivities that have to be considered in cold case reviews, in this case to a grieving family.

Challenges to Successful Reviews: Lack of Modern Technologies

When considering the challenges to a successful result in a cold case it should also be noted that detectives do not have the investigative tools often relied upon in current major crime investigations. Investigations conducted prior to the introduction of HOLMES would have been on paper, the volumes of which were evident from the photographs shared earlier in the book, making it now difficult to connect various sources of information. There is no instantaneous retrieval of information on paper as there would be with HOLMES — now review officers have to go through a series of enquiries, after wading through reams of paperwork, some of which will draw a blank and some of which could open up new possibilities and lines of enquiry to be explored.

Additionally, detectives do not have the modern techniques and technologies that are available to assist in major crime investigations now. Current investigations have the advantage of CCTV, which may show the victim and offender together, or a potential offender in the vicinity of the crime. In current investigations CCTV is often relied upon to place the victim and suspects in the area at the time, and is often used in media appeals. Historically, however, CCTV was not always available to support detectives. Even in the more recent cold cases the police would be reliant on the CCTV having been correctly retrieved and retained before the footage has been replaced, to be of use.

p. 128 Automated Number Plate Recognition (ANPR), which can place a vehicle in a particular area at a certain time in live investigations, and so can be used to research an alibi and suspect ↵ movements, as well as the movements of the victim's vehicle, is often used in current investigations (Monckton-Smith et al. 2013), but not in cold case reviews. In addition, mobile phone technologies, which can link communications made between offenders and can show the phone location at different points, now often relied on in current major crime investigations, to connect suspects to crime locations and to the victim and other suspects, were also not available at the time many of the cold case crimes occurred.

Furthermore, house-to-house enquires can be made immediately after the crime has been reported in order to elicit information quickly from the public to shed light on what happened, whereas in historic crimes these investigative avenues cannot now be explored, though they would have been conducted extensively at the time. Witnesses identified at the time of the original investigation can be spoken to again, though the issues relating to whether they can be traced and what they can or cannot remember need to be overcome. New leads will be pursued when members of the public come forward and any individuals named will be pursued, but without anything to connect a suspect to the crime, pursuing such leads can be problematic. What they do have though are advances in forensic techniques, as will be returned to in Chapter 8.

Forward Planning

Earlier in the chapter, the work required to rebuild case files before the reviews could be conducted was documented. It was suggested that a process of back engineering takes place. The problems created by missing paperwork and the lack of an organized filing system for the reviews have been noted as a particular problem for the review team. Now forward planning is also being suggested as an essential part of the progression of the cold case review process. Forward planning involves ensuring that the review files are up to date and retained and filed in an easily accessible order in the event that the cases are reviewed again with advances in forensic science or new information coming forward. For the review team, it also means considering what exhibits are held or samples retained that could potentially be used in the event of further scientific advances. That is, they may not be able to progress these investigative avenues now but in future ↵ new ↵ techniques and technologies may be available to develop them further.

p. 129

This decision to test samples now or in the future depends on the likelihood of success and whether, in the circumstances, it would be advisable to wait for further advances in science if there is the potential that tests at this time would render the exhibit unsuitable for further testing. This is an important consideration if the

exhibit is likely to be destroyed by the current test, and where the current test may not take the case any further forward, as the comments by one of the review team suggests:

One of the things we have to consider is what they may be able to do with DNA and forensics in the future. We have to think about the damage a test now might do to a sample that may yield better results in the future. We always need to keep in mind advances in science where we might be able to do things in the future.

These considerations show that not only is back engineering required to reconstruct case files, but forward planning is also required to think about what might be possible in the future. Forward planning was also evident in the unsolved murder discussed earlier when the paperwork accumulated from the original investigation was being input on to HOLMES in preparation for an offender being identified through familial DNA searching to enable the review team to better manage the information held and in preparation for the disclosure of the materials should the case proceed to trial. Which, of course, ultimately it did. It should be considered that even though many of the unsolved murders had been reviewed at different times in the past, there was still no order to them, such that the review team have had to begin again in getting everything into order for the reviews, which begs the question why were these items not all kept together when previously reviewed? This problem is now being rectified.

All of the stranger rape case files are now being prepared in anticipation of future reviews. A project was commenced to collect all of the files from the reviews the team have been involved in, to be stored together and filed systematically so that it is known where all the files will be in case of future need. Now, when any case files are released to the review team, a note is added to the force computer systems, outlining where the files are held. This was helpful for an investigating officer in the force area, who had a new rape in their district, which the investigating officer remembered had a similar unique modus operandi (MO) to a case that had occurred sometime previously. Knowing that the review team now held the original file, she contacted them to obtain the details, to be able to connect the crimes together, and so the record keeping and communication system proved effective on this occasion. Nevertheless, even as the review team are trying to collate everything, it seems files are still being moved to different buildings within the force area. When the civilian officer responsible for this project was telephoning different police stations she was often advised that files could no longer be found. As she says: 'you can see why things are constantly being lost if they keep being moved across the force.'

Finally, all of the unsolved murders in this force have been preliminarily reviewed with the key documents stored in a single box, with a current review report available for each case. This ensures that they are in a position to be continued with in the event the team is no longer together in their current format. The review process is cyclic in nature, with unsolved crimes reviewed when successive advances in forensic technologies come along, and so it is important that everything is in order in the event of a future review. As previously reported, this in itself is considered to be a success, to have all the files 'up straight' for any future reviews or developments.

Conclusion

To conclude this chapter, it has been seen that the work of the review team is fundamentally routine, painstaking, and meticulous, yet often mundane, revolving around finding paperwork, reviewing case files, compiling reports, and looking for scientific and other opportunities to progress a case. That is, the work is more akin to administrative work than investigative, as Thornton and Harper (1991) previously suggested of detective work. Traditional detective skills are required to trace and locate suspects, witnesses, and victims. Locating the original personnel involved in these cases is an important component of these reviews and as more officers leave the police service, this will become a greater challenge. Furthermore, within this process of back engineering a number of problems were identified, including items missing from the original investigations, the difficulties in being able to locate witnesses and confirm their credibility, and in connecting suspects to crimes many years later. Moreover, it has been suggested that cold cases do not have the benefit of many of the modern technologies often relied upon in current investigations. But, while these obstacles can create difficulties in cold case reviews, it is the lack of an effective retrieval and retention system that can be most problematic.

As such, the learning from cold case reviews is not necessarily the learning that you might expect: it is much more fundamental, based on the need for basic storage, retrieval, and retention systems. As was noted, in recognition of the problems the lack of a filing system and the missing documentation has created, a further process of forward planning has been adopted. In considering future cold case reviews, biological material of insufficient quality for testing now have been identified, with the possibility that they may be able to improve upon them to advance to a DNA profile as future scientific advances occur. With the recognition that the constant advances in forensic techniques can yield results in cold cases, all the available data is to be correctly stored and retained. Nevertheless, the corporate data held and the corporate memories of individual officers may be lost as they leave the force and cannot subsequently be traced.

These processes again illustrate how the reality of cold case reviews is in contrast to the rhetoric of them, as others, especially Ericson (1993), have noted, with investigations more broadly. Chapter 8 will expand upon some of the points raised in this chapter, in particular the reverence to, and reliance on, forensic science in cold case reviews. Further obstacles to success will become apparent especially in relation to the contamination of exhibits and the fallibilities of forensic science. Again, it will become clear that forensic science is not the panacea so presumed and again in contrast to the rhetoric of forensic science often portrayed in media accounts.



CHAPTER

8 The Reliance on Science

Cheryl Allsop

<https://doi.org/10.1093/oso/9780198747451.003.0008> Pages 132–147

Published: February 2018

Abstract

This chapter is concerned with the place of forensic science in cold case reviews and the differences in its positioning when comparing cold case murders and cold case stranger rape reviews. It will be suggested in this chapter that there is a reliance on science in cold case reviews but this reliance is not without issue. However, it is a good place to start an investigation, especially in sexually motivated offences, when it can identify a previously unknown offender, link crimes, or open new investigative lines of enquiry to implicate or eliminate offenders. The issues inherent with relying on forensic science in cold case reviews will also be made clear.


Keywords: DNA, science, interpretation, context, contamination, links, murder, stranger rape DNA, science, interpretation, context, contamination, links, murder, stranger rape

Subject: Criminal Law, Criminology and Criminal Justice

Introduction

This chapter is concerned with the place of forensic science in cold case reviews and the differences in its positioning when comparing cold case murders and cold case stranger rape reviews. Case studies of cold case murder reviews in progress will demonstrate how science is required to connect suspects to the unsolved murders. But despite having possible suspects identified, only one of the murders in this police area has been detected. In contrast, scientific advances have enabled many stranger rapes to be detected, as has already been illustrated. This difference is perhaps not surprising. Finding a forensic sample in a rape case which matches an individual on the National DNA Database (NDNAD) automatically connects them to the scene of the crime, whereas in unsolved murder reviews, scientific opportunities often only help to show part of the picture.

We have already seen in Chapters 1 and 2 how murders have been detected through familial DNA searching, leading to offenders being identified from their DNA left at crime scenes. Notwithstanding this, DNA is not the ‘silver bullet’ often assumed and there are other issues which prevent cold case murders being detected. Accordingly, it will be suggested here that there is a reliance on science in cold case reviews but this reliance is not without issue. However, it is a good place to start an investigation, especially in sexually motivated offences, when it can identify a previously unknown offender, link crimes, or open new investigative lines of enquiry to implicate or eliminate offenders.

The chapter will begin by documenting the place of forensic science in cold case murder reviews, where suspects have been identified and it is necessary to implicate or eliminate them. After  that, the chapter will illustrate the position of forensic science in stranger rape reviews, especially the ability to link these crimes. Finally, the issues inherent with relying on forensic science in cold case reviews will be explored.

A Reliance on Science: Cold Case Murders

To set out some of the key issues and considerations that undergird the ensuing discussion, the chapter begins with a case study showing how scientific advances are required to connect a suspect to an unsolved murder. This review is unusual in that a suspect had already been identified, and so the task was to try to connect him to the crime, or to eliminate him. As he had an alibi, forensic evidence was sought to put the suspect at the scene of the crime, with a direct link to the victim and the crime.

The murder was of a man in the 1980s. The victim had been beaten and strangled and his body dumped. One man became a strong suspect in this case after witnesses said that he had asked about finding someone who would commit the murder for him. The suspect did, however, have an alibi and so it was speculated whether he had committed the murder himself or commissioned others to do it for him. The pathologist stated at the time that it appeared that two people had been involved in the attack, as the victim had no defence wounds to his body and bruises suggested he had been held by one assailant, while the other struck him about the head.

In this case, even though there is a prime suspect with a motive and with witnesses suggesting he often spoke of killing the victim, without any evidence to corroborate the suspicions the suspect cannot be charged. The following case file notes outline the problems for the team:

Amongst articles submitted for examination were the car and clothing of the deceased, together with the normal body samples, and the car and clothing of the suspect with his body samples. It has not been possible as a result of the examination of these items, to connect the suspect in any way, with either the death of the deceased, the scene of the crime, or with the disposal of the body. He is the only person to benefit from the crime but he has an alibi and there is, therefore, nothing to connect him to it (Murder case file notes).

p. 134

There appeared to be no reason for the victim to be murdered; he was still in possession of a large amount of cash and the keys to his car had been placed in his pocket to make it appear like suicide. A watchstrap became a focal point for the review, as it had small amounts of blood upon it, thereby providing an opportunity to connect the suspect to the crime. The watch was submitted for forensic testing, but the blood on the item was not of sufficient quality to give a meaningful result, as the review officer in charge of this case, a retired detective sergeant (DS), explains:

you've got the motive, you've got everything on it, and you had the watch that had got blood on it, and it was the right blood group for the suspect, but that's all they had, blood group, and you think, if only they could find blood on it now they might be able to get DNA, and they did find blood on it, and you think all this is looking good, but then it was not enough, or it was degraded sufficiently, so they haven't been able to get DNA.

Interestingly, this option as a possible source to link the suspect to the crime appears to have been raised in three previous reviews but did not appear to have been submitted before, so despite a reliance on forensic science in cold case reviews, opportunities are not always pursued, even to pursue promising leads. That having been said, this lead may have been explored earlier and the paperwork relating to the tests may simply have gone missing. Nevertheless, on the face of it, it does not appear to have been progressed earlier.

So even when you have a murder where there appears to be a strong suspect, who has a motive, and who appears to have tried to engage others in arranging to have the victim killed, more corroborating evidence is necessary to connect the suspect to the crime. It is, therefore, easy to see why forensic opportunities would be relied upon in the absence of a confession from the suspect or other strong evidence placing him at the crime scene. Nevertheless, even when it appeared that there may have been forensic evidence available, the passage of time rendered the opportunity futile. What is less clear is why, if such an opportunity is vital to progress the case, the item has not been tested previously. At the time of the crime suitable tests were not available and, as illustrated in the previous chapter, the timing of the tests is important, to ensure they do not curtail any future opportunities if the current chances of success are limited. In this case the blood has now been tested but, because of the passage of time, it has degenerated and cannot provide a suitable profile.

p. 135 This raises the issue, would the sample have provided a better result if it had been pursued during the earlier reviews? Or, conversely, would waiting for any future opportunities have been more advantageous? The sample is now of no use and we cannot know for sure whether the timing of the test has had an impact on this. This anomaly is not uncommon in cold case reviews, where opportunities for progression have been identified in earlier reviews but not progressed. The following note from a current cold case murder case file suggests opportunities at that time had not previously been pursued:

The potential for further forensic work remains as the recommendations in 2000 including getting voluntary swabs of the suspects mentioned earlier, and testing profile material held on slides from one of the suspects' trousers to establish any links to the victim (Murder case file notes).

Several years later these forensic opportunities remained and so in two unsolved murders suspects are identified and opportunities to potentially link them to the crime were not pursued, which raises the question as to how important the leads were, and why they were not considered important enough to pursue previously. Clearly, resource issues must be overcome, but if resource is being spent on reviews, and they are considered important enough to have a team in place to do them, then surely leads such as this, which could eliminate or implicate a suspect, should be actively pursued. At the time, the review team were not confident enough in the possibility that one of these people could be the offender and so the elimination process was not deemed urgent enough to pursue.

I turn now to the second of the murder case study examples. This one again serves to highlight several points: first, the need for forensic opportunities to connect suspects to the crime; second, the obstacles faced by the passage of time; and third, where promising leads come to nothing, especially when key items cannot be located.

This review concerned the murder of an elderly woman in her flat in the mid-1980s. She had been sexually assaulted and murdered. After reviewing the paperwork, the review officer found that there were a few people of interest to the enquiry who had not been properly considered suspects at the time. One person of interest was the man who had found the victim dead. He was an odd job man knocking door to door for jobs. He was a convicted murderer out on life licence, having been convicted of the murder of an elderly lady in her home in similar circumstances to the current crime. As such, he became of interest to the review officer.

Similarly, the occupier of the flat above the victim's flat was also considered a viable suspect. The review officer discovered he had been in possession of a drawing of a woman with her breast severed, exactly as had happened to the victim. Moreover, some time later the suspect had been arrested at a car park in another county and was claiming to have committed a murder. It also appeared that he had lied about his whereabouts on the night of the murder. The review officer noted that an off-duty police officer had seen the suspect in his flat at the time of the murder. As the review officer knew this police officer, he contacted him to find out more and discovered that the officer had been concerned about this crime for many years. He is convinced that he saw the suspect, in contradiction of the suspect's evidence at the time, but the original senior investigating officer (SIO) had dismissed this, being convinced that the neighbour was not the offender. In fact, both leads were not pursued originally. For the review team, it was necessary to try to link these suspects to the crime. Unfortunately, key items were missing; the post mortem swabs from the victim, described as the most important exhibits, had been lost by the Forensic Science Service (FSS) and as such it was thought that there were no further opportunities to link either of the suspects to the crime.

It is not, therefore, just the police service who lose or destroy items, but other organizations too, in this case the FSS. Moreover, it had been thought that the suspect's blood may have been found on the wallpaper of the victim's flat, so connecting him to the crime, but again, due to the passage of time, the substance on the wallpaper cannot now be confirmed as blood. This suspect has subsequently killed himself. In fact, all the potential suspects are now dead and nothing has been found that can connect any of them to the crime.

This, again, raises the issue of how successful a cold case review can be, and the value of them, if all the suspects are now dead. This is particularly so if all the relatives of the victim are also dead. Should valuable time and resource be expended on a case where no one can be prosecuted for it, and there are no relatives of the victim still alive? It was noted in Chapter 2 that another police area had been able to achieve a crime 'clear up' when identifying an offender, now deceased, thus helping their crime figures, but is that sufficient justification? More importantly, however, in that case there were relatives of the victims who wanted to understand what had happened to their loved ones, justifying the expenditure. Indeed, the impact

of these crimes can be felt through generations and so, while immediate family may now be dead, others still alive may have been affected by the legacy of the crime.

During my fieldwork, the grandson of a man murdered in the 1940s contacted the team to find out more about the murder and any current investigations into it, even though he had not been born when the murder happened. Moreover, as noted in Chapter 2, when outlining the 'signal crimes' concept, communities also remember these serious crimes and so it can be considered important to identify these offenders, to reassure the public. Similarly, anyone who had previously been a suspect may still be regarded with suspicion by the community, until the correct offender is identified and, crucially, if the murders could be linked it is important to identify that too. There were several unsolved murders that may have been connected, including two similar prostitute murders in similar locations and three murders of young women in similar locations.

Accordingly, if there are opportunities available to pursue an offender in a cold case, it is considered important to do so. As was apparent from the two cases documented here, had suitable contact trace or cellular material been found that could connect the suspects to the crimes, the end results may have been very different, as has been evidenced by the murder conviction which was made possible by familial DNA searching.

A Reliance on Science: Cold Case Stranger Rapes

p. 138

The stranger rape review processes from initial scientific upgrade to successful prosecutions have been described previously when it was highlighted how forensic opportunities identified suspects in two cold case stranger rapes. Indeed, it was noted that it is with stranger rape reviews that this force has had the most success. The matching of a forensic sample to an offender on the NDNAD instantly gives the police a connection between the crime and potential offender, as the two examples showed. Forensic science helps to identify an offender and a case can then be built against them. Here I will explore further opportunities forensic science can provide in sexually motivated offences.

The following case study describes how forensic samples can help to match an offender to a crime and disprove the offender's account of events, where he had admitted to a lesser offence. The example also, once again, demonstrates the detective skills used to progress to a prosecution. The details are as follows. During the 1970s a series of sexual assaults occurred in an affluent area of the city. A man was eventually caught and convicted of several indecent assaults, but a number of rapes remained unsolved. One such rape was subsequently reviewed. On reading the paperwork it became apparent to the review officer, a retired DS, that the force had blood grouping from the victim's underwear, and the forensic science lab still held the underwear and a partial DNA profile was obtained. A speculative search of the NDNAD resulted in a hit to the offender, who was pending release from prison.

He was interviewed about this rape; however, when he was told about the DNA on the underwear he argued that it had, in fact, been an indecent assault and the victim had spat out the semen onto her underwear. The offender considered indecent assault to be less serious than rape and so he was prepared to admit to that instead. For the review officer this meant looking for any evidence to disprove this. During his search of the exhibits, found among the paperwork were four tubes with vaginal swabs contained within them. Even though there were potential issues with the continuity of the samples, and these items had not been kept in a freezer, as they would now be, the tubes were sent to the forensic science laboratory for testing. This provided a match and, as it was from a high vaginal swab, disproved his assertion that it had been an indecent assault.

p. 139

Upon looking through this file the review officer also discovered the rape of a student in the same area that was still undetected, and had a similar modus operandi (MO) to these other offences. During this rape, the man had ejaculated. The victim did not pick the man out from an ID parade, but she remembered certain details about him. A check of the forensic material available showed that the FSS had retained five sperm heads on a slide, which was insufficient to test at the time. Nevertheless, the review officer was satisfied that there was enough circumstantial evidence to connect the suspect to the crime. Accordingly, during the interview the review officer bought up this rape, telling him that though they did not have enough evidence with the five sperm heads at that time, it is likely that in the future there would be sufficient forensic advances to be able to progress this case. Given that, it was suggested to him that it would be in his

best interests to admit to the offence now. He pleaded guilty to both rapes and indecent assault and received a further ten-year prison sentence.

From originally only having blood grouping, the forensic upgrades enabled the case to progress through to a successful prosecution, and helped to disprove an offender's claim of committing a 'lesser' offence. Importantly, it also demonstrates the detective skills that are necessary to advance these cases, not just the forensic opportunities. In 'chancing his arm', to use the vernacular, the review officer was 'entrepreneurial' in getting a reluctant offender to confess to the crime, based on the possibility of what might be available in the future. Forensic science is, therefore, not only providing good evidence in and of itself, but it is also providing review officers with other investigative opportunities. This is also so in being able to establish any outstanding crimes this man might be responsible for, and how this could be proved. In fact, more recently another force area contacted the review officer for help in a rape investigation when the suspect's DNA profile matched this offender's profile.

Links

As noted earlier, one of the ways in which forensic science can successfully progress cases are those of serial offenders, where each crime can be linked by the scientific matches to offenders and crime scenes. Indeed, the team were originally set up following a series of rapes in which, through forensic matches, it became apparent that one man was responsible for eight rapes and another was responsible for two, prompting the realization that science can help with these types of crimes.

As one of the forensic scientists who had worked at the FSS for many years and interviewed during this study suggested:

A feature that was cropping up all around the country, that we would be finding earlier offences in a serial offender's career, and they were either in prison or it would revoke their licence if they were out, and they would be put back in prison, which was again another good detection point. We were picking up another interesting trend with the serial offenders, we would be picking up earlier crimes in their offending history, and once or twice I've had a couple of examples of where an individual is in prison for an offence he'd committed recently, being arrested and ultimately convicted of an offence he'd committed previously.

p. 140

Scientific matches can provide the link between cases, enabling repeat offenders to be caught, and enabling officers to corroborate cases of bad character or similar fact evidence in multiple offences. The following example is of a recent rape where a DNA profile of the suspect, when tested, matched a sample that had been upgraded from a cold case rape committed eight years previously, providing corroborating evidence of bad character. The rape he had originally committed involved an attack on a girl in the city centre, after he pushed her into an alleyway and raped her. The upgraded sample from this earlier violent rape meant that when he offended again, subjecting a girl to a rape at a house party, the profile matched the profile from the earlier rape and the offender could be charged with both crimes. The MO in both rapes was very different, so the connection would not have been made without the forensic evidence linking the two crimes.

The offender had claimed that both girls had consented but, given the nature of the crimes, and the fact that two girls, independent of each other eight years apart, had reported a rape, he was not believed. Had the review team not taken the initiative to upgrade the sample, he would have continued to get away with the earlier attack, and the rape at the house party may not have been such a strong case for the prosecution. He was convicted of both rapes and received a sentence of twelve years in prison. The review team were then also able to look at other unsolved stranger rapes to see if this offender could be connected to them, as it was important to establish what he had been doing in the interim between these two offences, considering it unlikely that he had not offended in the years between the two attacks.

Links between stranger rapes nationally should also be considered and the Serious Crime Analysis Section (SCAS) at the National Crime Agency (NCA) are tasked with doing just that. But without being able to connect the crimes with forensic evidence, it is often difficult to do so, unless there is a 'strikingly similar' MO between the crimes to warrant further questioning. Forensic science is therefore required to connect multiple offences and offenders to crimes, but it is not without issues, and, as previously noted, is not the silver bullet so presumed. There are a number of issues inherent with relying on science in cold case

p. 141

reviews, as will be considered next. As one member of the review team suggested, ‘forensics does give you false hope and can’t be trusted all the time. It is a complex thing you can’t rely on it.’

Retention and Integrity of Exhibits

In the first place, using forensic science is dependent on the exhibits being available and retained in such a way that current or future testing is possible. In the past, it was common practice to return items to suspects, victims, and relatives if officers did not think these items needed to be retained for a prosecution. In addition, many items are missing having been misfiled, lost, or destroyed.

More fundamentally, however, issues in relation to the contamination, integrity, and ability to show the continuity of these old exhibits is also a problem in cold case reviews (Lord 2005; McCartney 2006). Detectives investigating major crimes historically would not wear protective clothing and gloves, as they routinely do now, and so increased the chance that exhibits could be contaminated. During an investigation into the murder of a prostitute in the mid-1980s, an item of jewellery found near the victim’s body was held up for a photo opportunity by detectives requesting information from the public about the potential owner of it, in so doing contaminating either end of it with their own fingerprints and DNA. Clearly, at that time the police service would not have been aware of the potential forensic science could bring to these investigations and so, as the scientific support manager pointed out, ‘What will that result mean when you have to question the integrity of the item?’

Similarly, comments from the minutes of a meeting held in connection with a rape review demonstrate the problems of potential contamination of an exhibit that might occur:

In relation to the weapon used, any person who has touched the knife, from the person packing it at the factory, to the person who put it on display at the supermarket, could have left their DNA on the knife. It is furthermore possible that this DNA would have survived this length of time, as a knife, unlike an item of clothing, would not be subjected to washing etc (Stranger rape case file notes).

p. 142 Furthermore, an explanation given by the forensic scientist about other contamination issues was documented in the stranger rape file:

If you are a ‘low shedder’ and you shake heads with a ‘high shedder’ and then touch a cup, it is possible that you could leave the other person’s DNA on the cup and not your own (Stranger rape case file notes).

Given how items were retained when they were thrown into the exhibits bag without being covered or sealed protectively, there is the risk of contaminating exhibits. Indeed, I observed many items in an exhibits bag that had been thrown together in this way, including tapings and items of clothing in relation to the unsolved murder of a young woman in the 1970s. The tapings were submitted to the forensic science laboratory, to assess if any cellular material was testable. A mixed profile was found, but as the scientist used to handle the tapings without gloves, it was suggested that their profile be obtained and tested against the profile identified. From that it was discovered that the profile was predominantly his.

There are, therefore, many factors that must be taken into consideration when assessing the value of DNA and contact trace material to an investigation. The context of where a sample is found, and the circumstances of the case, is also often considered necessary to understand the scientific test results and what they mean in relation to the investigation (Innes 2003).

When considering the role of forensic science in murder investigations it has been contended that it is only in being aware of the context of the submission that the true evidential value will be known but, equally, does providing the context influence the results achieved? Often, the relevance of the DNA evidence is only assessed by a concurrent consideration of all the non-DNA evidence available in the case. As the forensic support manager from the scientific support team suggested:

Forensic science is not the result of a scientific test, it is the result of the scientific test in the context that it has been left, so it’s for its evidential value significance, the interpretative worth is tenfold because you can get some DNA off that, but what does it mean unless you actually apply it

to the context of where it was found, how it was left in relation to the body, and all those other issues. And if you weren't privy to the fuller context because, for whatever reason the person who found the body had moved something, or the paramedic, or the police officer, or later on how things came into the investigation, how it was seized, if you're not fully aware of that you lose some of the benefits of what the forensic science might, or might not, be able to tell you.

The sociology of scientific knowledge might suggest that providing the context with a submission is dangerous and potentially compromises the submission. In giving the context and sharing what it is the investigating officers are hoping to prove with the submission, are they running the risk that the result is invalidated, altering the reliability of the findings? Or, is context necessary to understand the value of the contact trace or cellular material found? As the scientific support manager contended:

Blind testing for no bias, but there are also schools of thought that you need to be in the loop, because something that does not appear to be too significant might have huge significance when applied in the collective environment of every other string you're looking at, at the time.

Indeed, in a stranger rape review, the original scientist involved suggested that a rape may not have occurred, as had been claimed, based on where the semen sample was found. But, it was subsequently discovered that the victim had vaginitis which another scientist suggested would explain the discrepancy in the opinions given. He commented that had he been aware of that at the time, the original response would have been different, so potentially changing the course of the investigation.

While interpretation of the scientific results can be problematic, scientific advances are a good place to start with a cold case review, given the potential opportunities to identify previously unknown offenders, to connect offenders to crimes, to dispute suspect accounts, and to eliminate suspects. It is often the only evidence that could not be explored at the time of the original offence. However, as was demonstrated by the murder case studies, it is not a guarantee of success. On the contrary, there are many factors which render the science ineffective, such as the contamination and integrity of the exhibits and, more fundamentally, in not having the exhibits available to test. Notwithstanding these issues, it does provide an excellent opportunity to identify an offender, particularly when considered in the context of how and where it was obtained. It is, therefore, understandable why, with the scientific opportunities afforded to cold cases, they are constantly reviewed, despite the limited success.

p. 144 The following discussion with a DS who had previously worked in the review team outlines why he thinks that relying on scientific advances is all that can be done in a cold case. He was asked:

Do you think there is any other way of doing cold case reviews other than forensically?

He responded:

I don't think so no. [named] is a good example of that, you know, we obviously, we had the bones found and we looked at that from a cold case prospective, probably six/nine month before the victim was recovered, and said, well, actually there are no forensic opportunities. And then we thought well, if there are no forensic opportunities do we look at re-investigating the whole matter again, and then, you know, from people I've spoken to in the review team, well there's no point in doing that. It's a massive amount of work, you don't get the benefit out of it, you don't get where you want to get to, and then, of course, we found the bones and we had some more forensic recovery at the scene from where they were, so we sent all that off and there's a massive amount of work that's done in relation to the forensic items that were recovered with a negative result.

And what we have done alongside that is re-investigate the original investigation and re-see all the witnesses, and we are still no further forward. So, if we had a forensic hit we'd have resolved it, without a forensic hit, we've put massive amounts of work in, it's been running for probably well over 12 months now and we're still no further forward. So I think it justifies the process, because I think if you opened up all these other investigations, cold case investigations, purely on, we'll re-investigate without any forensic, you may well be in the same position. You do months and months of work but actually do not take the case any further forward. You still need evidence, you know, whichever way you look at it, you can have suspicion and, you know, intelligence, and you can have all the bits and pieces, but if you've got nothing you can connect it with, no evidence to put before a court, it matters not what you think, how you think it happened, and who did it, it does not matter.

p. 145

As the comments suggest, to re-investigate a murder would be difficult, resource intensive, and time-consuming, given the sheer volumes of data that would need to be reviewed (for the visual depiction see Chapter 6). Accordingly, forensic opportunities are required to begin to identify a suspect which would then enable further targeted enquiries to be made. Cold case reviews are the ultimate ‘whodunnits?’ and the forensic science is relied upon to provide the potential identification of an offender. This is only possible if the exhibits and samples taken were correctly collected, stored, and retained.

As has previously been identified, review officers are mindful of the need for evidence to take a case to court and it is the science that is seen to provide that evidence. As such, forensic science is required both to identify a suspect and to ‘prove’ a case in court. But, in not reviewing everything in an investigation, are other opportunities being missed when forensic opportunities are not immediately obviously? Could potential witnesses be identified who may now have changed allegiances? If there are witnesses noted in these files who have not been properly interviewed, should they be actively pursued? Witnesses may be able to provide names, details, or descriptions that could open new lines of enquiry, albeit any suspects will still need to be connected evidentially to the crime.

The following comments from one of the review team, a serving detective chief inspector (DCI), also reiterates why they considered science to be the only viable way forward in a cold case review, providing a good starting point when a suspect is identified, especially given that the volume of data to go through in a murder review is a prohibitive factor in trying to find anything else to take the case forward. And, as Innes (2003) previously noted, managing ‘information overload’ in a murder investigation is problematic. But, while the review officer suggests that detective skills may be lost by relying on science, previous examples in this book have shown that both forensic science and investigative skills are required.

p. 146

DNA is the only way forward in cold cases, it is a double-edged sword as you get to rely on it and forget about how to do good old-fashioned policing, but in a review without it, it would be difficult to know where to start when you have crates and crates of evidence to go through. It would take a year to get everything on computer to cross reference things and to decide which way to take it; with forensics, it gives you a starting point. So, unfortunately, some cases we’ve got no exhibits or anything left and that really makes that case almost null and void, you know, we can’t do anything with it and you have to put it to bed unless somebody came up with some fresh information i.e. the most likely that you could have is somebody suddenly decides to confess, you know, maybe in prison, they may be dying or something like and they decide they wanna sort of get it off their chest before they pass away or before, you know, whilst they’re stuck in prison, because it’s troubling them. That again, is very rare but, you know, with cases like that 50 60% of the ones we have are in that category, so, you know, out of 26, 27 cases you’re probably looking at 15 that we definitely probably can’t do anything with. And although they’re now tidy and, you know, there’s documentation that tells us where everything is, what there is, and if there is no scope that there’s no scope, at least it’s there, you know, and if anyone decides to look at it or some fresh information came in they could look at it and read and get a good understanding in a few documents without having to go through masses of paperwork or make other enquiries so that’s a positive.

Another member of the review team, a serving DS, suggested:

With cold cases, it’s very difficult to do anything other than that, as I said, and I take [named] as my example. Every forensic opportunity has been exhausted with him, we’ve got a name and, you know, it’s very difficult isn’t it then. He’s hardly going to confess, is he? Is he going to come forward, I don’t think so? Live cases I do think, probably we do tend to go towards the forensics, depending, everybody thinks the forensic issue is going to solve it. D, for example, everyone thought that would be solved forensically and, in fact, it hasn’t been, so you have to go back to old fashioned police work. So, I think, really the two go hand in glove and a good experienced SIO will ensure that happens.

What is of paramount importance is in being able to show the continuity of any forensic evidence relied upon from the crime scene, which means being able to track down the officers involved in the investigation right from the start so that they can then detail what they did with the exhibit, or more commonly, if they cannot remember the specific cases, what they would normally do in the circumstances. This is important to ensure that the defence cannot claim that the profile relied upon in the prosecution did not come from the crime scene.

Conclusion

This chapter has demonstrated that in cold case reviews science is often relied upon to progress historic unsolved crimes. With the successes achieved in linking crimes and offenders to crimes, particularly in the stranger rapes, it is easy to see why. But the cold case murders have not been so successful. Even when potentially strong suspects have been identified, without a forensic match they could not be linked evidentially to the crime, and so the cases could not be progressed until any other leads become apparent. But to look for other options is problematic; in particular it would take a lot of investigative effort to go through all of the paperwork in a cold case murder in the hopes of identifying new leads.

Accordingly, it is easy to understand why the stranger rape reviews are more successful than the murder reviews. Forensic matches found in cold case stranger rapes can immediately connect a suspect to the crime, whereas in a murder the context of any forensic match is needed to connect the suspect to the victim and the crime. Second, in stranger rape reviews the amount of documentation is limited and so spotting opportunities to progress a case is more easily identified. In a murder investigation, the volumes of data to be reviewed will mean that opportunities are not so easily apparent. In fact, the volumes of data can make it prohibitive to review thoroughly for any possible leads. But in not doing so, the chance to spot a potential investigative avenue to pursue may be missed. That having been said, in taking incremental steps forward in a murder investigation to the point where a full DNA profile is achieved, the subsequent resource allocation in trying to trace the offender through familial DNA searching has proved to be worthwhile.

Chapter 9 will consider what other forms of expertise might be available to open new lines of investigative opportunity to potentially identify a suspect. In particular, there are a number of experts and sources of expertise available to help investigators tasked with hard-to-solve crimes, but, as will be noted, these are rarely used, unless they can be utilized in conjunction with a forensic opportunity.