CRIMINAL PROFILING: PROBLEMS AND PROSPECTS

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“... ignorance more frequently begets confidence than does knowledge” Charles Darwin (1871) *The Descent of Man*, London, p.3

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ABSTRACT

Criminal profiling refers to a range of techniques that are argued to predict characteristics of an offender from an analysis of the circumstance of the offence. The American model of profiling, developed by the FBI, emphasises the exercise of intuition and judgement by an experienced criminal investigator. The British model is characterised by the use of complex multivariate statistical procedures, and is generally practised by forensic psychologists. Over time, both models have been subsumed into a larger range of analytical techniques which are offered as consultancy services to investigators, some of which are more contentious than others. While both models of profiling are problematic, the American model appears particularly so. There is more evidence that profiling can misdirect investigators, or even contribute to serious miscarriages of justice, than there is for its capacity to contribute to a successful resolution of cases. It is significant that in a number of instances DNA evidence has subsequently confirmed the negative influence that profiling had on the investigation and prosecution process. This development mirrors problems that other forensic individuation procedures have experienced in recent years, partly as an indirect result of the success of DNA analysis, and partly due to increased scrutiny of their scientific credibility in the post-Daubert environment for admissibility of expert evidence in the American legal system. Current and future developments in DNA technology, particularly the prediction of physical characteristics like hair and eye colour, facial morphology and height, are likely to lead to further reassessment of the role of profiling in criminal investigations. DNA even has the potential to reliably identify biogeographical ancestry, and this methodology has contributed to the resolution of at least one investigation where a profile had produced a misleading prediction of the offender’s characteristics. It is likely that even if DNA proves to be a more scientifically successful methodology for predicting the characteristics of an offender from crime scene evidence, where this success involves the identification of physical characteristics associated with biogeographical ancestry, it has the potential to be more controversial than profiling.
INTRODUCTION

Psychological profiling describes a process, typically applied to serial murder, sexual assault and arson, which attempts to identify characteristics of an unknown offender, through a detailed examination of crime scene and victim characteristics, informed by information about prior similar cases. According to Farrington, (2007: 486)

*The basic idea of profiling is very simple. Its aim is to predict characteristics of the undetected offender(s) from characteristics of the offence(s) and the victims(s). However, this simple aim leads to many complex and unanswered questions.*

Psychological profiling is also known as “criminal profiling,” “offender profiling,” or just “profiling.” For simplicity, this paper uses the term “profiling” to refer to the suite of techniques and approaches developed over the years to pursue the original aim of determining the likely characteristics of a crime’s perpetrator by examining the details of the crime itself” (Risinger and Loop 2002: 230).

In recent years, profiling has been subsumed into two more general approaches to the use of the behavioral sciences in support of criminal investigation. The FBI model of profiling matured into “Criminal Investigative Analysis,” with profiling being one of a number of services offered by appropriately qualified police officers. In some ways in competition with the FBI approach, in the United Kingdom, and increasingly in Australia, a similar range of services are offered by qualified forensic psychologists who are accredited to practice as such in their jurisdiction.

Profiling originated in the United States in the FBI, and consequently this model is best known, particularly among the general public, because of its prominence in film and more recently in TV crime drama and true crime programs. As such, one could argue that profiling is as much a cultural phenomenon as a scientific one (Seltzer 1998, Warwick, 2006). The FBI model is mainly established in the United States and Canada, and is practiced primarily by serving or ex police officers. It is characterized by its focus on the judgment and experience of experienced investigators, and is learned by a semi-formal apprenticeship process administered by an association of current and ex-FBI profilers known as the International Criminal Investigative Fellowship (ICIAF). FBI profilers frequently state the view that profiling is more of an art than a science.

The second major approach to profiling is associated with the Centre of Investigative Psychology at the University of Liverpool. Where the FBI model is practiced primarily by police officers, Investigative Psychology is founded on the insights of academic psychology, and is based on the development of analytical databases of offender characteristics and behaviour and the application of complex multivariate statistics such smallest space analysis and multidimensional scaling.
In addition to these dominant schools a model of profiling called behavioural evidence analysis is promulgated by Brent Turvey, a forensic scientist from the United States. Turvey’s approach is similar to the FBI, but focuses more closely on adducing conclusions strictly from available evidence, and avoiding the construction of elaborate speculations that are sometimes a feature of FBI profiles. Turvey’s approach argues that each crime should be analyzed in itself, with minimal reliance on statistical generalizations that can be misleading in the case in question.

An Australian psychologist, Richard Kocsis has published a series of papers and books advancing a model of profiling known as Crime Action Profiling, but this appears to have had little impact on profiling practice, and it is not known whether the model is actually employed by a currently active profiler.\(^2\) There is also an indeterminate number of psychologists, psychiatrists and others offer profiling services on a consulting basis.

**PROFILING IN THE AMERICAN TRADITION.**

Profiling is closely associated with the FBI Behavioral Science Unit, which was established in the 1970’s at the FBI Academy, Quantico. The pioneer of profiling at the FBI was Howard Teten, who had studied with renowned forensic psychiatrist Dr James Brussel (Risinger and Loop 2002, 230)\(^3\). Teten became the first head of the FBI’s Behavioral Science Unit when it was created from the hostage negotiation unit in the early 1970’s. In the late 1970’s the FBI embarked on a program of interviews with a number of serial killers in the hope that information gathered would be of assistance in the analysis of future crimes. These interviews were conducted by John Douglas and Bob Ressler, and appear at first to have been relatively informal. In Douglas’ terms (Douglas and Olshaker 1996: 117):

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\textit{The prison visits became a regular practice whenever Bob Ressler or I were on the road school and could get the time and cooperation. Wherever I found myself, I'd find out what prison or penitentiary was nearby and who of interest was “in residence.”}
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It has been observed more than once that there is no evidence that Ressler and Douglas had any training or knowledge of research design. The interviews did not appear to be conducted on the basis of a defined interview schedule or result in the compilation of formal notes or records of these interviews (Risinger and Loop 2002: 231). Rather, in Douglas’ own words the program was informal, and aimed at “letting us see the way the

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\(^2\) See, for example, Kocsis (2006)

\(^3\) Brussel is often mentioned as the first prominent profiler, having famously predicted in the 1950’s that the “Mad Bomber” would be wearing a buttoned double breasted suit when caught. As Risinger and Loop (2002: 230, n.215) point out, Brussel’s own book tells us that the bomber was wearing pyjamas when arrested. Presumably the bomber did own a double breasted suit, however, because the anecdote is repeated in nearly every book or article about the development of profiling.
offender’s mind worked, getting a feel for them, allowing us to start walking in their shoes” (Douglas and Olshaker 1996: 117).

Profiling appears to have been introduced to the broader law enforcement community in the United States by virtue of an article in the March 1980 issue of the FBI Law Enforcement Bulletin by Behavioral Science Unit members Richard Ault and James Reese (Ault and Reese 1980). The article essentially recounted Ault and Rees’s apparent success in assisting local police solve a baffling rape, gave a brief overview of the process of profiling, focusing on the potential for clues left at the crime scene to give the profiler insight into the motivations and character of the offender. The article concluded with an invitation for police who wanted a profile to contact a local FBI field office and indicate that they were seeking assistance from the training division’s behavioural science unit. However they warned that there were limited resources available, and cases would be dealt with on a “time available basis, with the more severe cases being given priority.”

In April 1980 Roy Hazelwood and John Douglas published a short paper in the FBI Law Enforcement Bulletin called “The Lust Murderer.” Where the Ault and Rees article essentially announced the availability of profiling services to American Law Enforcement, Hazelwood and Douglas outlined the rationale behind profiling, and most importantly introduced the idea of the organized vs the disorganized offender, which is the core of the FBI approach. The paper contained descriptions of the two kinds of offender that hint at the kinds of characteristics of the offender that would be highlighted in a profile developed on the basis of the distinction between organized and disorganized offending:

The organized offender (Hazelwood and Douglas 1980: 18):

...exhibits complete indifference to the interests and welfare of society and displays an irresponsible and self-centered attitude. While disliking people in general he does not avoid them. Instead, he is capable of displaying an amiable façade for as long as it takes to manipulate people towards his own personal goal. He is a methodical and cunning individual, as demonstrated in the perpetration of his crime. He is fully cognizant of the criminality of his act and its impact on society, and it is for this reason that he commits the crime. He generally lives some distance from the crime scene and will cruise seeking a victim. Dr Robert P Brittain ... has stated “…they ...are excited by cruelty, whether in books or in films, in fact or fantasy.”

The disorganized offender (Hazelwood and Douglas 1980: 19):

4 In the original paper, the typology was between “the organized non-social” and “disorganised asocial” offender. The categories were later simplified to organized and disorganized, and I have employed that terminology in this review.
...exhibits primary characteristics of societal aversion. This individual prefers his own company to that of others and would be typified as a loner. He experiences difficulty in negotiating interpersonal relationships and consequently feels rejected and lonely. He lacks the cunning of the [organized] type and commits the crime in a more frenzied and less methodological manner. The crime is more likely to be committed in close proximity to his residence or place of employment, where he feels secure and at ease.

According to Hazelwood and Douglas (1980: 20), murders committed by both kinds of offenders are characterized by their brutal and sadistic manner, and the body will exhibit “gross mutilation and/or displacement of the breasts, rectum, or genitals.” The organized offender may dismember the body to attempt to hinder the identification of the victim, is more likely than the disorganized offender to sexually penetrate the victim with his penis, and will generally leave less physical evidence at the scene than the disorganized offender, as a result of his cunning and methodical character. He will be more likely to carry a weapon to the scene and take it away when departing. Hazelwood and Douglas state that the organized offender has “an almost obsessive desire …. to assess the police investigation, even to the extent of frequenting police “hangouts” to eavesdrop on discussions of unsolved crimes, or in some manner, inserting himself into the investigation.” This behaviour they interpret as indicative of the tendency of the offender to see himself in some kind of game with the authorities.

The disorganized offender is indicated when the victim was subjected to torture or mutilation prior to death. Disorganized offenders are more likely to use a weapon of opportunity that may be left at the scene. Mutilation performed by the disorganized offender has a child-like character, where the offender “involves himself in an exploratory examination of the body in an attempt to determine how they function and appear beneath the surface.” The disorganized offender is less likely to penetrate the victim with his penis, but “commonly inserts foreign objects into the body orifices in a probing and curiosity-motivated, yet brutal, manner,” with evidence of ejaculation perhaps being found on or near the victim. Consumption of body parts is indicative of the disorganized offender.

Both kinds of offender may return to the crime scene, but for different reasons. The organized offender may return to the scene to engage in further mutilation or to relive the offence, the organized offender is more likely to see if the body has discovered or to check on the progress of the investigation. Later on, a third category (mixed) was added to the typology of offenders, apparently to cater for those crime scenes that exhibited evidence of both kinds of offending behaviour.

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5 The mixed category appears to have been developed in the early 1980’s and first appeared in print in a special edition of the FBI Law Enforcement Bulletin in 1985 (Ressler and Burgess 1985)
In terms of its structure and content, the 1980 paper on lust murder falls far short of what would be considered an acceptable social scientific exposition of a concept. There is no discussion of the evidence upon which the distinction between organized and disorganized offenders was based, other than a statement that “are based on the author’s examination of case reports, interviews with investigative personnel, and a careful review of the literature.” The careful review of the literature appeared to include only 6 publications on murder and sex crimes, and one article has commented that the elaboration of the organized/disorganized distinction proceeds “in a kind of stream-of-consciousness collection of unqualified declarative sentences to describe what they clam to be the characteristics of these two types of murderers” (Risinger and Loop 2002: 234)

In an interview with Katherine Ramsland of Court TV (Ramsland not dated), Hazelwood described the origin of the typology between organised and disorganised offenders:

> I noticed that in a number of cases, there were some that seemed to be well thought out and others that were highly spontaneous. I went to John [Douglas] and told him my ideas. So we sat down and came up with the characteristics of each type. But then the members of the Behavioral Science Unit told us that it would never fly. It won’t stick, because it was too simple. They said we had to add something like “organized asocial” and “disorganized nonsocial.” So in the article we tacked those terms on. But what happened? You go anywhere in the world in law enforcement, and among criminologists and mental health workers, and you’ll hear that there are two broad categories of killers: organized and disorganized. So it did stick.

In addition to the introduction of the organized/disorganized typology, Hazelwood and Douglas’ (1980: 22) is interesting because it contains an early clear statement of the purpose and nature of the psychological profile:

> A psychological profile is an educated attempt to provide investigative agencies with specific information as to the type of person who committed a certain crime. It must be clearly stated at the outset that what can be done in this area is limited, and prescribed investigative procedures should not be suspended, altered or replaced by receipt of a profile. Rather, the material provided should be considered and employed as another investigative tool. The process is an art and not a science, and while it may be applicable to many types of investigations, its use is restricted primarily to crimes of violence or potential violence.
When prepared by the FBI, the profile may include the perpetrator’s age, race, sex, socioeconomic and marital status, education level, arrest history, location of residence in relation to the scene and certain personality traits.

A profile is based on characteristic patterns or factors of uniqueness that distinguish certain individuals from the general population. In the case of lust murder, clues to those factor of uniqueness are found on the victim’s body and at the scene and would include the amount and location of mutilation involved, type of weapon used, cause of death and the position of the body. The profiler is searching for clues which indicate the probable personality configuration of the responsible individual.

In the 1980’s the research became more formalized when Dr Ann Wolport-Burgess, a psychiatric nurse, joined Roy Hazelwood in a study of autoerotic strangulation which accumulated a collection of 150 cases. The FBI’s interview program matured during this time, and with the assistance of Wolport-Burgess, had developed a “five part, 57 page interview protocol which was completed in conjunction with 5 to 10 hour intensive interviews of the murderers by veteran FBI Agents with behavioral science backgrounds” (Depue 1986: 3). While data collection took place between 1979 and 1983, it was not until 1982 that the project was formalized with a grant from the National Institute of Justice. (Ressler, Burgess and Douglas 1988)

The context of the formalization of the FBI research program was growing concern with the rise of violent crime in the United States in the 1960’s and 1970’s. In an article in 1986, Roger Depue, Unit Chief of the Behavioral Science Unit, wrote of the “violent crime wave which had begun in the 1963 and was showing no signs of abatement well into the 1980’s.” Depue’s article identifies the FBI’s Behavioral Science program as an important policy response to the problem of violent crime, culminating in the announcement by President Regan in 1984, of the establishment of the National Centre for the Analysis of Violent Crime (NCAVC) with the primary mission of identifying and tracking repeat killers (Depue 1986: 5).

The NCAVC established four programs, research and development, training, profiling and consultation, and the Violent Criminal Apprehension Program. The goal of NCAVC was to “collect and analyze violent crime data and provide assistance to law enforcement agencies in their attempts to locate, apprehend, prosecute and incarcerate the persons responsible” for “the most baffling and fearful of the unsolved violent crimes, such as homicide, forcible rape, child molestation/abduction and arson” Depue (1986: 5).

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6 See Depue (1986). The violent crime wave referred to by Depue did not abate in the US until the 1990’s, but since then violent crime in the US has declined spectacularly, with violent crime rates reaching “the lowest level ever in 2005,” according the US Bureau of Justice Statistics (www.ojp.usdoj.gov/bjs/gvc.htm).

7 VICAP was a forerunner of the VICLAS program which operates in the US and Canada, but which has not been successfully implemented in Australia.
Against this background, the FBI sponsored research project appeared in May 1985, in the form of a report to the Trustees of Health and Hospitals of the City of Boston Inc, and in special edition of the FBI Law Enforcement Bulletin in August 1985. The May report was aimed at the academic audience, and contained a range of statistical analysis and qualitative material collected during the study of 36 serial killers, while the August report provided a summary aimed at the law enforcement audience.

The May report limited itself to consideration of two questions:

1. To test, using statistical inferential procedures, whether there are significant behavioral differences at the crime scene between crimes committed by organized sexual murders and those committed by disorganized sexual murderers, and

2. To identify variables that may be useful in profiling sexual murderers and for which organized and disorganized sexual murderers differ.

(Burgess and Ressler 1985a: 3-4).

The report concluded that there were some variables that were statistically associated with organized and disorganized crime scenes, and that some variables might be useful in distinguishing between the organized and disorganized offenders in the sample.

Importantly, the study concluded that (Burgess and Ressler 1985a: 32):

It is imperative that this be viewed as demonstrating only that profiling is an objective possibility. The study does not establish that profiling can, in fact, be done, or that if it were done, it would be successful. Instead we show that further study of profiling is, indeed reasonable and appropriate.

(emphasis in original)

In comparison to this careful and limited conclusion, the articles appearing in the August 1985 FBI Bulletin were upbeat about the potential of profiling and cited a number of cases where the subsequent arrest of an offender demonstrated the accuracy of a profile. It was stated that “in sex related crimes, the structure of the crime scene provides insight into the offender’s patterns of behaviour,” and “this study demonstrates that there is reliability in the classification of crime types and scenes by BSU Agents (Ressler and Burgess 1985: 16). The research project was cited as establishing the existence of variables that may be useful in a criminal profile and distinguish between organized and disorganized offenders. The possibility of the use of artificial intelligence to generate

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8 See Burgess and Ressler (1985). This report had limited circulation, and I am indebted to Dr Wayne Pertherick of Bond University for assistance in locating a copy.
automatic profiles was even mentioned (Ressler and Burgess 1985: 25, a process that obviously would require the development of a significant number of valid variables relating to crime scene classification and linking offender dispositions and character to the crime scene information.

One article in the August 1985 *Law Enforcement Bulletin* presented an examination of the inter-rater reliability of the organized/disorganized distinction. Five different agents were presented with a information about a series of pre-classified crime scenes, and were asked to assess whether they were characteristic of an organized or disorganized offender. If the classification schema is reliable, then the agents would tend to agree in their assessment of each case. An analogy would be a set of diagnostic criteria, for example, for measles. It is obvious that the criteria are useful if in the majority of cases doctors accurately diagnosed measles through application of the criteria. If doctors tend to disagree, and diagnose measles when the patient has another condition, or fail to diagnose measles when the patient has the disease, the criteria are not useful and may be dangerous. Examination of the performance of FBI profilers in successfully classifying a series of crime scenes in to the organized and disorganized categories – arguably the simplest step in developing a profile – showed large variations in the performance of the agents (Ressler and Burgess 1985: 17). While the article puts a positive spin on the results, they are not supportive of the inter-rater reliability of the distinction between organized and disorganized crime scenes.

In reviewing this material, it is hard not to note that a considerable edifice has been built on a relatively flimsy foundation. While both the primary report and Law Enforcement Bulletin accounts of the research both suggest that further research, aimed at assessing the validity and accuracy of test profiles based of profiles, there is no evidence that such research was carried out. In fact, subsequent publications were generally rehashed the original material, with a book length version appearing a number of years after the original *Law Enforcement Bulletin* articles containing most of them as chapters, supplemented with more case studies and some chapters of new material on Forensic pathology the role of the police artist and the victims families response to trauma (Ressler, Burgess and Douglas 1988).

The pinnacle of the FBI program was the development of the *Crime Classification Manual* (Douglas et al 1992). The manual is a compendium of detailed subgroups of Homicide, Arson and Rape and Sexual Assault, each accompanied by information about the victimology, typical investigative considerations, crime scene indicators, and typical forensic findings, all liberally illustrated with case examples. In comparison to the earlier publications, it is stated that the crime scene will be rarely completely organized or disorganized, but will more likely be somewhere on a continuum. (Douglas *et al* 1992: 9). The *Manual* also contains a more nuanced definition of profiling:
Investigative profiling is best viewed as a strategy enabling law enforcement to narrow the field of options and generate educated guesses about the perpetrator ... the investigative profile is particularly useful when the criminal has demonstrated some clearly identifiable form of psycho-pathology. In such a case, the crime scene is presumed to reflect the murderer’s behaviour and personality in much the same way as furnishings reveal the homeowner’s character (Douglas, et al. 1992: 21).

The Crime Classification Manual was also introduced the term “Criminal Investigative Analysis,” and the elaboration of its stages:

1. Evaluation of the criminal act itself
2. Comprehensive evaluation of the specifics of the crime scene(s)
3. Comprehensive analysis of the victim
4. Evaluation of preliminary police reports
5. Evaluation of the medical examiner’s autopsy protocol
6. Development of the profile, with critical offender characteristics
7. Investigative suggestions predicated on construction of the profile (Douglas et al. 1992: 310)

According to the Manual the process is “quite similar to that used by clinicians to make a diagnosis and treatment plan,” and while criminal investigative analysis “unfortunately does not provide the identity of the offender,” it does “indicate the type of person most likely to have committed a crime having certain unique characteristics”(ibid).

It is important to note that while it was hoped that the Manual would provide an important reference against which investigators could classify serious offences, Ressler et al. (1992) had to admit that “At present there have been no systematic effort to validate these profile based classifications,” (quoted in Alison and Canter (1999a: 26).

Against the general concern with the increase of violent crime, and in particular the publicity accompanying a series of distressing and sensational serial murder cases, it is understandable that the FBI was keen to develop the informal expertise of the Behavioral Science Unit into a scientifically validated method of solving such difficult cases. Making the expertise of the FBI available to support local police was an important strategy, given the fact that United States law enforcement is made up of so many agencies, large and small. The large agencies could be expected to have well resourced and trained specialist criminal investigators, quite capable of undertaking large and complex investigations. However, the resources of smaller jurisdictions would be understandably stretched in the face of a serial sex murder investigation, a situation exacerbated when a case involved a number of jurisdictions, such as local, city and state police, as a result of the location of crime scenes. In these circumstances, the assistance
of an experienced FBI investigator to examine the totality of evidence and make recommendations in relation to investigation strategies, quite apart from any contribution that a profile might make, would be very valuable.

As the FBI developed and refined its approach, there was an explosion of public interesting criminal profiling. The novelist Thomas Harris undertook research with the FBI before writing a series of novels that dramatised their activities, and the public’s infatuation with profiling was fuelled by the release in 1991 of the Academy Award winning film of one of the novels, Silence of the Lambs. At this time, a number of the pioneering FBI profilers had retired, and were able to take advantage of the growing public interest in profiling by producing co-authored accounts of their careers aimed at the popular audience. These books had catchy titles — for example, Whoever fights Monsters: A brilliant FBI Detective’s Career-long War Against Serial Killers (Ressler and Shachtman 1992) — and portrayed the detectives in and their cases the most positive light. The claims of amazing accuracy in these popular books, as well as in the articles in the FBI Law Enforcement Bulletin, are often in stark contrast to the more measured claims in the research articles that were published in the social science journals (Risinger and Loop 2002: 233.) More recently, profiling has featured in a number of popular television shows, such as Criminal Minds, Millennium, Cracker and Profiler. One could even argue that profiling is as much a cultural phenomenon as a scientific one (Seltzer 1998, Warwick, 2006).

As the public and media interest in profiling grew, the FBI went through the usual series of restructures and re-organisations that are characteristic of large bureaucratic organisations, for example, after September 11, 2001, when three sections dealing with behavioural science applications to counter-terrorism, crimes against adults and crimes against children, were created. In its current structure, investigation support is provided by the National Centre for the Investigation of Violent Crime. In recent years, the FBI’s mission has been increasingly organised around counter-terrorism activities, compared to the focus on serial crime that led to the establishment of the Behavioral Science Unit in the 1980’s.

In the final development relevant to this review, it is important to note that in 1991 the FBI suspended its Police Fellowship Program, which since 1985 had provided training and accreditation for FBI and other officers. The void was filled by the creation of the International Criminal Investigative Analysis Fellowship in 1992. The Fellowship is a private organisation formed by the graduates of the FBI’s original Police Fellowship Program and exists to train and accredit police officers in Criminal Investigative Analysis. It has been suggested that the ICIAF had been set up to “corner the market” in Criminal Investigative Analysis training and accreditation, but it is worth noting that a number of private companies and universities in the US offer some degree of training in

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9 This information comes from an interview with Special Agent Mark Hilt by Catherine Ramsland. See Ramsland (n. d. b)
10 According to Davis and Bennett (2006) two Australian Police Officers were accredited in the 1980’s under the Police Fellowship Program
CIA, often with the involvement of former FBI officers, and apparently outside the auspices of the ICIAF.\textsuperscript{11}

It is important to emphasise that the Criminal Investigative Analysis model that police officers trained by the ICIAF practice goes beyond criminal profiling as such. ICIAF understudies undergo a program that includes study and training in:

- Crime scene reconstruction
- Forensic pathology
- Sexual assault offenders and typology
- Sexual homicide
- Homicide investigation
- Equivocal death analysis
- Child abduction and molestation
- Interview and interrogation
- Normal and abnormal behaviour (psychiatry and psychology)
- Analysis construction
- Threat analysis
- Arson and bombing

In addition, candidates are required to become familiar with the following topics:

- Blood spatter analysis
- Forensic laboratory procedures and capabilities
- Scientific content analysis (statement analysis)
- Computer aided case linkage analysis (eg ViCLAS)
- Media relations and pro-active strategic media releases.\textsuperscript{12}

It is difficult to delineate all of the activities that are conducted under the Criminal Investigative Analysis model, since the FBI or the ICIAF do not appear to have published a detailed account of the methodology, or even an overview of the Criminal Investigative Analysis process as it is currently practiced and taught. This lack of transparency makes it very difficult to assess the virtues of the ICIAF approach and any advantages it might have over investigative psychology or the range of services that can be delivered by a forensic psychologist.

Some clues can be gleaned from the FBI website, which states that:

\textsuperscript{11} Examples include the Alpha Group Center for Crime and Intelligence Analysis Training, and California State University, Fullerton.

\textsuperscript{12} Information provided by NSW Police Forensic Psychologist.
The mission of the BAU is to provide behavioral based investigative and operational support by applying case experience, research, and training to complex and time-sensitive crimes, typically involving acts or threats of violence. The program areas addressed include Crimes Against Children, Crimes Against Adults, Communicated Threats, Corruption, and Bombing and Arson Investigations. The BAU receives requests for services from Federal, state, local, and international law enforcement agencies. Response to these requests for BAU assistance are facilitated through the network of field NCAVC coordinators. BAU services are provided during on-site case consultations, telephone conference calls, and/or consultations held at the BAU with case investigators.

BAU assistance to law enforcement agencies is provided through the process of "criminal investigative analysis." Criminal investigative analysis is a process of reviewing crimes from both a behavioral and investigative perspective. It involves reviewing and assessing the facts of a criminal act, interpreting offender behavior, and interaction with the victim, as exhibited during the commission of the crime, or as displayed in the crime scene. BAU staff conduct detailed analyses of crimes for the purpose of providing one or more of the following services: crime analysis, investigative suggestions, profiles of unknown offenders, threat analysis, critical incident analysis, interview strategies, major case management, search warrant assistance, prosecutive and trial strategies, and expert testimony.\(^\text{13}\)

Commenting on a US case, (Cochran 1999) distinguished profiling from criminal investigative analysis in the following terms:

Criminal investigative analysis involves a detailed review of all aspects of a particular crime, which may have been committed by either a known or unknown offender. Profiling, on the other hand, is an analysis of a crime or series of crimes committed by an unknown offender which results in a detailed description of the type of person who would have done such a crime or series of crimes. This “profile” of the unknown offender is designed to be used by investigators to assist in catching the offender. As the offender in this case ... was already known, the case involved in the use of Criminal Investigative Analysis, not true “profiling.”

The Royal Canadian Mounted Police provide an insight into the range of services offered by its officers who are trained and practice in the ICIAF process:

**Personality Profile:** This is a detailed behavioural analysis to derive information about an unknown offender. The analyst examines information about the victim and the offence to determine the characteristics and traits of the offender. Such a personality profile may allow those involved to recognize someone as a possible offender. Based on the analysis, the analyst can usually offer suggestions for further investigations.

**Indirect Personality Assessment:** This is an assessment of a known individual believed to be responsible for committing a violent crime. The assessment, based on an evaluation of the individual's personality, can help to determine:
- whether or not the suspect's personality fits the crime under investigation;
- suspect's strengths, weaknesses and areas of vulnerability;
- interview techniques appropriate for the suspect;
- strategies for a successful undercover operation;
- strategies for negotiating successfully with a hostage-taker;
- strategies for investigating offenders of sexual homicide or serial rape, particularly to elicit predictable actions on the part of the offender; and
- most appropriate trial and courtroom strategy.

**Equivocal Death Analysis:** This is an in-depth crime scene reconstruction undertaken to provide an opinion on the manner of death: homicide, suicide, accidental death, death by natural causes, or death by misadventure. This is generally done in conjunction with a psychological autopsy.

**Assessment of Threat or Extortion Communications:** The analyst examines a threat or extortion communication for content and stylistic characteristics in order to assess the validity of the threat and the level of risk to the victim and suggest ways to minimize the risk to the victim. In some cases it is possible to provide a profile of the unknown author or caller.

**Consulting to Provide Expert Analysis:** This service is provided to help investigators focus and fine tune interview techniques, develop investigative strategies including undercover operation strategies, and develop an appropriate trial and courtroom strategy. A CIA analyst can provide services such as:
- crime scene reconstruction;
- expert evidence/reports to coroner's inquest;
- expert opinions for use in search warrant and privacy act applications;
- expert evidence/reports regarding the 'signature' of serial violent offenders;
- analysis of stalking cases;
- research on unusual areas of expert examination; and
- consultation on media strategy and releases.  

It is important to note that the range of services offered by are broad, and include activities that in NSW (by virtue of the Psychologist’s Act 2001) could only be offered in NSW by a registered Psychologist. Other activities, such as consultation on media

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15 See part xx, below..
strategies and releases would in the NSW context, involve specialist media advisors, and not be the preserve of a Criminal Investigative Analyst.\textsuperscript{16}

The ICIAF training requires a commitment from the officer’s agency that they will work as a criminal investigative analyst, as a primary role, for the last year of the understudy training and a minimum of three years following certification. The training also requires that the candidate spend:

- A minimum of 2 months with a sponsoring fellow (someone already qualified as a member of the ICIAF)
- A minimum of two 1 month internships with non-sponsoring fellows from two different law enforcement agencies and
- A minimum of 2 months supervised work with the FBI National Center for the Analysis of Violent Crime.

The nominee must be a law enforcement officer with a minimum of three years recent experience in investigation of crimes of interpersonal violence, and must be able to demonstrate “a superior level of investigative skill in the area of interpersonal violence,” and must be approved and sponsored by an ICAF Fellow in good standing. The Sponsoring Agency (ie the nominees agency of employment) must “agree to pay all the costs incurred by their nominee in meeting the requirements of the ICIAF understudy program.”\textsuperscript{17}

In total, this represents a rigorous program of experiential based learning, and a considerable commitment on behalf of both the ICIAF understudy and their sponsoring organisation, particularly when the need to travel to the United States or Canada (the main centres of practice of criminal investigative analysis) on a number of occasions is taken into consideration.

\textsuperscript{16} Note these services involve tactical media releases which have an investigative purpose, not necessarily routine media releases.

\textsuperscript{17} Details of the ICIAF understudy program sourced from unpublished material held by the NSW Police Force.
INVESTIGATIVE PSYCHOLOGY

The second major approach to profiling was founded by the British psychologist, David Canter, and is known as Investigative Psychology. Whereas the FBI’s Criminal Investigative Analysis has been conducted primarily as an activity for police officers, informed by behavioural science, Investigative Psychology has been practiced by academic psychologists, and is seen as an activity that supports the work of criminal investigators.

Investigative Psychology had its genesis in the 1985 when David Canter was consulted by detectives from Scotland Yard about the viability of adopting the FBI model of profiling to the UK (Norris 2006: 7). Canter provided assistance in the investigation of the “railway murderer” and subsequently elaborated his existing expertise in environmental psychology into a program in investigative psychology taught as a masters level course at the University of Surrey. This course and Canter’s centre for Investigative Psychology is now based at the University of Liverpool (Norris 2006: 8).

Canter developed his approach specifically in reaction to the informal and intuitive approach of the FBO model and the independent psychologists such as Paul Britton who had provided profiling services to police in a number of notorious investigations in the United Kingdom. For Canter, one of the features of profiling was the “absence of psychology in psychological profiling, and the legitimacy of the methods used to generate profiles is often contentious.” While profiles are presented with great conviction they are “often little more than, at best, subjective opinion, common sense or ignorance or at worst, deliberate deception” Alison and Canter, 1999b: 5-6.

Canter set about establishing a discipline of investigative psychology to address his concerns about the lack of rigor and scientific foundations of profiling as it was then practiced. In establishing the discipline of investigative psychology, Canter also went beyond a narrow focus on profiling, and embraced a more general approach to the science of investigation. Investigative psychology consisted of three areas – police decision making and the associated skills and culture of detection, interviewing and information assessment, and the psychology of criminal behaviour (Canter and Alison 1997: xvi). This approach sought to “turn the ancient craft of investigation into a professional activity that draws upon current psychological theories and findings” (ibid). Some of the areas that Canter and Alison’s research program has focused on include:

- Psychological autopsy – the attempt to understand the character and activities of a person found dead under suspicious circumstances;
- Information collection processes including interviews, with psychology offering insight into the evaluation of the information collected and also the nature of interviews and how they can be improved;
- Suspects, witnesses and informants, including how police should use different interview techniques for different kinds of interviews, the evaluation of the reliability and validity of informant’s information;
o Statement Analysis – the development of objective indicators or deception or false confessing;
o The classification of offenders – an interest that investigative psychology shares with the FBI model;
o The development of a scientifically based framework for psychological offender profiling (Canter and Alison 1997).

In the 1990’s The ACPO had set up a sub-committee on offender profiling, and published a policy to regulate its use in the United Kingdom. This original policy is reproduced as an appendix in Copson (1995), and importantly established a “list of persons, inside and outside the police service who are willing to offer profiling advice to police investigations.” As time went on, profiling was de-emphasised and the updated ACPO policy recognised the position of “Behavioural Investigative Advisor,” and all such advisors were to be accredited by the National Crime Faculty at Bramshill, and all requests for assistance were coordinated by the Crime Faculty on the basis of requests authorised a senior officer (in the case of the Surry Police by the Detective Chief Superintendent, Central Operations). The Kent Police’s policy, which is based on the ACPO policy, emphasises that:

> Although Behavioural Investigative Advice is considered viable and useful, it has not been scientifically validated and therefore is subject to much debate about the effectiveness and accuracy of an individual advisor. This can be seen in the use of Advisors by the defence, and the ensuing conflict in court between opposing expert opinion.

> In considering the use of a Behavioural Investigative Advisor a balance needs to be drawn between the benefits such advice could bring and the potential problems (Kent Police 1995: 5.5-5.6)

In general, Behavioural Investigative Advisors appear to be primarily academically qualified behavioural scientists with a specialisation in psychology, as well as clinical psychologists and psychiatrists. As at 2005, there were five full time Behavioural Investigative Advisors employed by the National Crime and Operations Faculty and more than 30 external consultants available to assist with investigations and who are audited and evaluation by the Faculty (Davis and Bennett 2005).

As stated above, the Investigative Psychologists have maintained an active research program, which stands in contrast to the FBI’s Criminal Investigative Analysis methodology, which appears to rely on its original, limited research foundation, and has not generated an ongoing body of professional knowledge. In particular, Investigative Psychology has made significant contributions to the theory and methodology of the police interview, and contemporary interview practice in the UK and Australia is founded on the work of psychologists and police offices in the UK who developed the investigative interview procedures employed in the PEACE model. There are also
multiple centres of teaching and research supporting the development of investigative psychology at other institutions, such as the University of Surry School of Forensic and Clinical Psychology.

OTHER MODELS OF CRIMINAL PROFILING

There are many other authors and experts who promulgate models of profiling that draw from one or other, or both, of the two models just discussed. Some are have their foundations in psychology and some are more practitioner based. Two of the most prominent are Brent Turvey and Richard Kocsis. Their work is not directly relevant to this review, but for completeness I will briefly address them.

Brent Turvey is a forensic scientist in private practice in the United States who has published a series of text books on his version of profiling “behavioural evidence analysis” (Turvey 2002, Chisum and Turvey 2007). Turvey’s approach appears to be originally influenced by the FBI model, but his publications have attempted to address some of the principle limitations of the FBI approach. Turvey takes an approach that explicitly draws on the tradition of scientific evidence analysis and forensics (ie Faigman et al. 1997). Turvey is critical of both the FBI and the Investigative Psychology approaches for their tendency to draw on statistical averages or past cases to assist in developing a profile of an unknown offender, pointing out the potential for error thus introduced to the exercise. Instead, he focuses on an exhaustive analysis of the forensic evidence, crime scene characteristics, victim and witness statements and a particular emphasis on the victim (see Fintzy 2000). Turvey’s method also emphasises professionalism in regard to profiling, and advocates a self critical approach combined with peer review to guard against bias, combined with adherence to a code of ethics.18

A proportion of Turvey’s practice appears to consist of deconstruction of mediocre criminal investigations on behalf of the defence, and his tendency to advertise the deficiencies of other forensic scientists and profilers on his website19 has contributed to his somewhat controversial reputation.

Richard Kocsis is a psychologist in private practice in NSW who has been very active in publishing journal articles and more recently books advocating a model of profiling he calls “crime action profiling” (Koscos 2006). While Kocsis has been relatively prolific in publishing material on profiling, there is no evidence that his system has been influential in profiling as it is practiced by people other than Kocsis.

18 The code is promulgated by the Academy of Behavioral Profiling, a professional body that appears to be a competitor to the ICIAF in accrediting profilers.
ASSESSING PROFILING AND PROFILING METHODS

The FBI model represents the pioneering tradition in criminal profiling, and as such it is to be expected that it has been subject to critical examination by newer models. However, it is worth noting that the development of the broader systematic approach to the analysis of unsolved major crime was a significant achievement for its time. This is true whatever one thinks of the relevance or prospects of the more narrowly focused technique of profiling.

Nonetheless, there are significant problems with the FBI approach, many of which stimulated the work of the Investigative Psychologists. Many of these stem from the limited scope of the original sample of 36 serial killers upon which Criminal Investigative Analysis was based. The profiling methodology, based on the original study of the 36 serial killers, came to be applied to a range of serial and other crimes involving, presumably, a range of motivations and offender types. Moreover, it is highly unlikely that the sample of serial killers was representative even of serial killers of their time, as the sample was one of convenience – only available killers who agreed to speak with Douglas and Ressler and their collaborators were included in the study. It also appears that the interviews were relatively ad hoc, and varied according to who was being interviewed (Canter et al. 2004: 296). It has been suggested (Turvey 2000) that a sample of serial killers, likely suffering from a range of mental illnesses, were the least reliable informants that could be imagined, and that as a result material collected from the interviews needed to be very carefully considered in the light of the tendency of criminals to lie about their history and activities, particularly when being interviewed by FBI agents. This would particularly be apparent in accounts of prior offending history offered up by the serial killers to the agents.

There is a significant problem with all kinds of research that concentrates on a limited sample, in this case of incarcerated offenders. Such research can indeed identify certain behavioural characteristics of the serial killers, but without a control sample of non-serial killers, the identified characteristics can’t tell us much about how common such characteristics are in the general community. This is important information if we are interested in using the data to assist in narrowing a list of suspects. In part, this is the reason why so many profiles appear to be vague and contain information that could apply to many people. The FBI serial killer study found high levels of pornography use and compulsive masturbation, for example (Ressler, Burgess and Douglas 1988: 25), but this is of little help in assisting to identify an offender, when it would appear that both an interest in pornography and masturbation are not uncommon in the broader community. As we shall see, the inclusion of such characteristics in profiles can be dangerous, because many potential suspects will exhibit some of the behaviours or characteristics the profile attributes to the offender. This creates a situation where it is all too easy to decide that a suspect fits the profile, and therefore must be guilty.
While there are obvious problems inherent in such a small scale, non-representative sample of serial killers, it was after all, a pilot study. This would not be so much of a problem if the research had been subject to replication, follow or validation. However, as has already been mentioned, while the FBI studies suggest that follow up research will occur, this never appeared. One could speculate that this was due to the same budget cuts that led to the demise of the police fellowship program in the early 1990’s, but there is not evidence for this conclusion. Where key concepts of the FBI approach have been subject to scientific evaluation by other researchers, the results have not generally supported their usefulness.

One example of impact of the restricted sample on subsequent profiling was the view that the majority of serial killers were white. It appears that the original sample of serial killers contained few if any African American offenders, and that partly as a result serial killer profiles have generally asserted that the most likely offender would be white. In fact, Walsh (2005), has claimed that in a sample of 413 serial killers between 1045 and 2004, 90 were African American, an over representation of a factor of two when compared to their proportion of the population. The majority of profilers and pundits had suggested that the Washington sniper was most likely to be “a young to middle-age white man with a political or social axe to grind,” and the revelation that there were two African American offenders, was somewhat of an embarrassment to the assortment of former FBI profilers and others who had offered the press theories about the likely characteristics of the sniper (Fagan and Badgley 2002).

Another example is the key distinction between organised, disorganised and mixed crime scenes. This was tested by Canter and his colleagues in a paper published in 2004. As Canter et al. (2004: 296) comment:

> the widespread citation of this typology is based on an informal exploratory study of 36 offenders put forward as exemplars, rather than a specific test of a representative sample of a general population of serial killers. This circular reasoning, involving the reification of a concept rather than an empirical validation of it, has the weakness of a self-fulfilling prophesy

Canter undertook a multivariate analysis of 100 serial killer cases archived at the Centre for Investigative Psychology, and concluded that the typology was of little empirical value. They found that “rather than being one subtype of serial killer, being organised is typical of serial killers as a whole” (Canter et al. 2004: 312). Importantly, in the discussion, Canter and colleagues stress that behaviours emerge from the transactions between offenders and victims, rather than exclusively individual traits. This is important because the FBI approach assumes that organised/disorganised crime scene behaviour is a function of the character of the offender, and will be relatively constant across different

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20 White, Willis and Smith (2002), also cited from a different source by Walsh (2005).
offences in the series. Canter suggests that it is likely that the pattern of organised/disorganised behaviours will be heavily contingent of contextual dynamic factors that vary from one crime scene to another. In this case, the distinction between organised and disorganised behaviours cannot be used to link crimes committed by one offender, or serve as the basis for creating a profile of the character and personality of the unknown offender.

Earlier, Alison and colleagues had undertaken a theoretical review of the theory of personality that underlies the FBI model (Alison, et al. 2002). This paper criticised what the authors call “the naive trait perspective” implied by traditional profiling models, which assumed that a serial offender exhibits behavioural consistency across different offences in a series, and also assume the existence of stable relationships between patterns of offences behaviours and offender background characteristics. The FBI model did distinguish between behaviours that are characteristic of the commission of a particular offence (modus operandi) which may change between offences are a result of situational factors, and the idea of “signature” behaviours, which are said to remain relatively constant over an offence series and to offer an insight into offender’s mind (Douglas and Munn 1992). But Alison et al. argue that the two underlying assumptions (consistency of offence behaviour and a correspondence between the way an offence is committed and a particular configuration of behaviours) received very little support from empirical research. They point out that it is difficult enough to understand the relationship between people’s behaviour and the situations they commonly encounter, but even harder to do this in the context of a criminal investigation where very little is known about the dynamics of a particular offence (Alison, et al. 2002: 124.) They conclude that (ibid: 132)

The notion that particular configurations of demographic features can be predicted from an assessment of particular configurations of specific behaviours occurring in short-term, highly traumatic situations seems an overly ambitious and unlikely possibility. Thus, until such inferential processes can be reliably verified, such claims should be treated with great caution in investigations and should be entirely excluded from consideration in court.

Alison subsequently tested the assumption that crime scene behaviours are associated with consistent sets of background characteristics through examination of a sample of 100 British male stranger rapists (Mockros and Alison 2002). This empirical study, used multivariate statistical techniques to search for relationships between crime scene behaviours and offender characteristics and found no evidence to support the idea that patterns of crime scene behaviour were reliably or consistently related to sets of offender characteristics.

Linking of serial crimes assumes that a degree of behavioural consistency across a series of crimes may indicate a single offender. The distinction between modus operandi and
signature is an important to the FBI model because it is argued that modus operandi varies according to the situational factors relevant to each particular offence, but that signature behaviour is relatively consistent, and thus provides a more reliable insight into the behaviour and motivation of the offender, and a viable means of linking a series of offences. The use of profiling techniques for linking offences was a significant extension of the FBI methodology, which on the view of Risinger and Loop (2002: 254), was invented by John Douglas with the primary aim of “justifying is own acceptability (and, by extension, those of other BSU profilers, such as Hazelwood, who might follow him as an expert witness offering testimony in criminal cases that separate crimes were all committed by the same perpetrator.” Risinger and Loop (2002: 254) are particularly concerned that linkage analysis had the aim of not identifying unknown offenders, as in the case of traditional profiling, but was “a tool to help build a case against defendants already believed to be guilty.” In support of this conclusion they quote from the following passage from Douglas and Olshaker (1996: 258):

> Traditionally, to get a successful prosecution and conviction in a murder case, you’ve needed conclusive forensic evidence, eye witness accounts or a confession, or good, strong circumstantial evidence. Now, from our work in behavioral profiling from crime scenes and signature analysis, there is another arrow in the police’s and prosecution’s quiver. In and of itself, it’s not usually enough to convict. But taken together with one or more of the other elements, it can often link various crimes together and be just what is needed to put a case over the top.

Bateman and Salfati (2007) examined a sample of 90 offenders involved in 450 serial homicide cases to determine whether the offenders consistently performed the same behaviours across their series of homicides. They also examined whether individual behaviours of combinations of behaviours were more effective in identifying behavioural consistency.

The study finds that the use of single behaviours, or even groupings of behaviours, is largely ineffective for in linking homicide offences together, or for differentiating between serial offences committed by one offender from those committed by another offender. Bateman and Salfati (2007) also found that serial offenders did not consistently preform the same crime scene behaviours throughout their series of homicides. In other words, the research indicates that great caution needs to be exercised by investigators when seeking to link a series of offences based on the identification of behavioural similarities between the offences. Bateman and Salfati conclude hopefully that further research is required that is more sensitive to the different themes that may exist in serial homicide, and focuses on behaviours more related to the intrinsic psychology of the offender. However, the results of this study are consistent with the other research reviewed in this section, and fail to support the validity of concepts that are central to the criminal investigative analysis (FBI model) methodology.
The development of a scientific foundation for criminal profiling was the original driver of the work of the Canter and his colleagues in the UK. Recent research conducted in this tradition has continued to explore the dynamics of offender behaviour and the personality and characteristics of offenders, but has to be said that so far no one has come up with an offender typology or set of profiling procedures that appear to be useful outside the narrow field of research.

Some recent research has examined the utility of different classification schemes for linking serial homicides and for potentially providing insights about the offender. While this research has tended to advance the scientific understanding of violent crime and violent offenders, it has not as yet discovered regularities that could form the basis of a valid profiling methodology. For example, in 2005 Salfati and Bateman published a study that analysed the first three offences in each series of 69 US serial homicides committed by 23 offenders. Noting the limitations of the organised/disorganised typology, Salfati and Bateman focused on the distinction between instrumental and expressive themes that had been identified in previous research. Instrumental themes are associated with behaviours relating to the offender attacking in order to gain something from the offence such as money or sex. Expressive themes are associated with offender behaviour aimed at hurting the victim, the behaviours are focused on extreme physical attack on the victim (Salfati and Bateman 2005: 124). The study found that, for the sample examined, most serial homicides, like single homicides, were deemed to be expressive. The model was not able to classify all homicides examined to a particular theme, or identify a dominant theme throughout a series of homicides, and the researchers caution that the model should serve as a guideline for research and “be used with caution, and certainly not stand-alone, in any investigation” (Salfati and Bateman 2005: 142.)

Similarly, a study by Youngs (2004) explored the complexity of offender actions and offender characteristics through a study of 207 young offenders in the UK. The research focused on a psychological concept called Fundamental Interpersonal Relations Orientation theory. The study points out that classes of offences are of little use in terms of studying the relationship between personality and crime style, because it is not the offence but the “psychologically active” components of the actual incidents themselves which are important. This study found some evidence that “offending behaviour is a continuation of an individual’s normal activities and non-criminal style of behaviour (Youngs 2004: 116).” However it has to be said that the research, in common with much of quantitative output of the Liverpool school, is methodologically complex and it is hard to see what contribution it could make for any practical methodology for offender profiling.

Hicks and Sale have presented a detailed analysis of the Canter model of profiling, and point out that Canter is in an ironic position, because his research program has contributed to understanding the inherent limitations of the concept of criminal profiling, and Canter has cautioned psychologists to refrain from purporting to provide expertise in an area that is not yet empirically validated. However, he has used his model in aiding police investigations, knowing that it is not so validated (Hicks and Sale 2006: 117). Hicks and Sale also point out that Canter’s theoretical approach, while a step in the right
direction and an improvement on the underlying concepts of Criminal Investigative Analysis, is deficient in a number of ways. Finally, its use of complex statistical techniques, such as smallest space analysis, requires the existence of comprehensive data sets about a range of offence types and also presents significant demands on the technical expertise of practitioners. Hicks and Sale (2006: 118) conclude that:

The basic profiling problem, as described by Canter, is that of linking offender actions during the commission of a crime to behavioral characteristics that will help to identify the offender. Unfortunately, Canter has not yet provided such a link through his research.

A recent replication of Canter’s empirical methodology gives support for this observation by Hicks and Sale. Sturidsson and colleagues (2006) reported that they were unable to replicate the motivational dimensions obtained by Canter and Heritage (1990) in an earlier study of sexual offence behaviour. There followed a lively debate between Sturidsson and supporters of the investigative psychology approach to profiling (Davis, 2009, Goodwill, Alison and Humann 2009, Sturidsson et al, 2009). Davis and Goodwill et al made a number of criticisms and suggestions in regard to Sturidsson et al’s methodology in a robust defence of multidimensional scaling in the analysis of sexual offence behaviour. However, in the final instalment so far Sturidsson et al (2009) replicated their analysis following the suggestions made by their critics, and reported that the results were no better than in their original replication, and that their “concerns regarding the uncritical, widespread use of MDS methodology for forensic psychology applications remain,”

ADMISSIBILITY OF PROFILING EVIDENCE

There are very few cases where profiling evidence has been admitted into evidence in Australian courts. This reflects in part the fact that profiling is principally an investigative tool, but also reflects a number of inherent issues that militate against the admissibility of profiling evidence. These include difficulties stemming from the rules of evidence and related problems with the status of profilers as expert witnesses.

The difficulties facing a profiler in giving evidence in Australia are well illustrated in a case before the ACT Supreme Court in 2003. In R v Steven Wayne Hillier, the accused was seeking bail pending his trial for the murder of his wife and arson. Opposing the application for bail, the crown adduced evidence from a former Queensland police officer, who was described as a “behavioural consultant,” and who had studied criminal profiling in the USA. Crispin J. observed that the consultant:

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held an Arts degree with a major in psychology, though he agreed he was not qualified to practice as a psychologist. He purported to give expert evidence based on photographs of the crime scene and other evidence coupled with his experience in investigating other offences, including murder, and insights which he had gained during his training as a profiler. Like Detective Sergeant Innes, he expressed concern that the applicant might attempt to kill his children, but his view was based upon the proposition that the applicant had an egocentric nature. He conceded that that had never met the applicant and volunteered the startling proposition that to have done so might have caused bias in the way that he considered what he regarded as the relevant behaviour.

The judge’s comments at this stage in the decision raise a number of the problematic issues, in particular the lack of appropriate qualifications and the difficulties in developing a reliable insight into the psychological character of the alleged offender.22 The Judge continued, pointing out the ability to give evidence about the personality and conduct of a person, without meeting them, from the evidence available at a crime scene, would require a profiler to exceed the limitations of the sciences of psychology and psychiatry:

The suggestion that a person who is not qualified as a psychiatrist or psychologist may express an expert opinion as to the personality, character and likely future behaviour of a man he has never met was one which I had not previously encountered in a court of law. I accept that a person with Mr Longford’s qualifications and experience may be able to make visual observations of a crime scene and identify signs of pre-meditation and planning, deduce that the crime was the product of an outburst of rage and even draw tentative conclusions as to the type of person likely to have committed it. Opinions of this kind may enable the police to identify the most likely range of suspects and to sharpen the focus of their enquiries accordingly. However, the fact that profiling may sometimes prove to be a valid investigative tool does not justify a conclusion that its exponents may leap majestically over the limitations of modern psychology and psychiatry and give expert evidence as to the personality and conduct of a particular person. I doubt that even the most eminent psychiatrist or psychologist would attempt to venture a professional opinion as to the underlying personality of a person whom he or she had neither met nor seen interviewed, even if informed of what had been found at a particular crime scene and invited to infer that the person had been the offender. Yet in the

22 We can deduce that the profiler in question, had not completed his qualification with the ICIAF, because it has been established that only two of the five police officers who commenced training in 1997 were accredited: the NSW and Victoria Police candidates. One failed at examination stage (WA) and two resigned from their agencies (QPol and SAPOL). I have been verbally advised that the Queensland Police determined not to pursue the program past its initial phases, and this decision contributed to the decision of the understudy to resign.
Finally, Crispin J observed that the profiler’s enthusiasm had overwhelmed his ability to take an objective view of the limitations of the profiling methodology. In particular, the judge was critical of the profiler’s preparedness to give opinions outside his qualifications and expertise:

> During the past few decades the whole field of forensic science has burgeoned and courts have become increasingly reliant upon expert witnesses. The trend has generally been of great public benefit. New techniques have often ensured the conviction of the guilty, the acquittal of the innocent and cast light on situations, the truth of which would otherwise have remained undiscovered. However, even well qualified experts are not infallible and their evidence will sometimes reflect the fact that they have the same human frailties as other mortals. Hence, courts must exercise constant vigilance to ensure that they are not unwittingly misled. Amongst the many factors which may lead an expert witness into error is a malady which, if encountered in a new car salesperson, might be described as gross product enthusiasm. Some witnesses seem to become so fervid about the potential of their chosen discipline that they lose sight of its limitations and are borne by their enthusiasm into making claims that could not be supported by a more sober and objective assessment of the available evidence. Regrettably, Mr Longford’s opinions seemed to have been influenced by this phenomenon. I have no doubt that he gave his evidence honestly but, in my opinion, he was plainly not qualified to express the opinions that he did. They were at best adventurous excursions into areas well outside the field of his expertise. The bulk of his evidence was clearly inadmissible and whilst no objection was taken to it, presumably because it was thought that a voir dire examination might cause undue delay, I was obliged to conclude that it could be given no real weight.

I have quoted this case in detail because it is the only time, to my knowledge, where a court in Australia has given detailed consideration to the issue of admissibility of profiling evidence. The decision canvasses a number of the important issues, including the inherent difficulties in making reliable judgements of the psychological disposition of an offender from crime scene evidence, the requirement for qualifications that are recognised in the Australian context as well as the tendency for profilers to sometimes over estimate the reliability and validity of their product.23

23 In subsequent hearings, Hillier was found guilty of the murder, but the Court of Appeal then quashed the conviction and entered a verdict of acquittal, on the grounds that the verdict of the jury was unsafe and unsatisfactory. The Crown as applicant then appealed the Court of Appeal’s decision to the High Court, and in March 2007, the High Court set aside the Court of Appeal’s decision and remitted the matter back for re-hearing — see R v Hillier [2007] HCA 13.
The matter of the qualifications of a profiler and the forensic value of a profile were also raised in a relatively recent matter heard by the Supreme Court of Western Australia. In this case, Christie was convicted of murdering his wife on largely circumstantial evidence. On appeal, conviction was quashed, and a retrial ordered. In relation to the retrial, Christie sought access to a report prepared by Senior Constable Kerr, during the original investigation, on the profile of the likely killer of his wife. The defence argued that there was a legitimate forensic purpose in having access to the profile on the basis that it may assist Christie to identify the person responsible for the death or disappearance of his wife, thus helping to exonerate him. In the State’s submission, the Commissioner of Police stated:

> It is submitted that as the profiling report comprises speculation, opinion and conjecture by a police constable of the possible profile of the offender responsible for Mrs Christie’s death or disappearance, the report is not likely to provide any new line of inquiry and will not assist the defence team to identify the person responsible for Mrs Christie’s death or disappearance.

While the Commissioner obviously had tactical reasons to adduce this argument, it raises a question as to the validity of a profile in the first place, if it is contains nothing more than the “speculation, opinion and conjecture” of a constable in relation to a putative offender. The judge agreed and in stating his decision said:

> The report seems to have been prepared by a constable. No relevant qualifications for the report writer are advanced. There is nothing put forward by the defence that gives rise to a reasonable possibility that the report might materially assist it. I do not consider a legitimate forensic purpose has been disclosed. The report is no more than one person’s opinion and could not lead to any legitimate area of inquiry. By its description, it is a profile, not an identification of a person. If profiles could actually identify a person, they may be useful. There is nothing to suggest that this profile does more than express an opinion of one person about the characteristics of a possible killer. I dismiss this summons.

In NSW, profiling evidence would generally be considered to be opinion evidence and thus is not generally admissible under Section 76 of the Evidence Act. However, Section 79 provides that:

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If a person has specialised knowledge based on the person’s training, study or experience, the opinion rule does not apply to evidence of an opinion that is wholly or substantially based on that knowledge.

The admissibility of profiling evidence therefore depends on the standing and qualifications of the witness, the scientific standing of the field in question, and the reliability and general acceptance in the scientific community of the methods used to develop the opinion. In Hillier, the case discussed above, the judge rejected both the qualifications and the argument put forward by the profiler, but accepted the testimony of an expert called by the defence, a psychologist who was registered to practice and who had evaluated the defendant.

In a legal advising provided to the Commander, of the Crime Management Faculty in 2004, a number of overseas cases were reviewed, and it was concluded that on the whole it is unlikely that admitted in criminal proceedings. The author of the report stated that in her opinion “until such time as criminal profiling is accepted by the scientific community as being able to provide and accurate and reliable opinion (other than a speculative conclusion), such evidence will likely be considered inadmissible in criminal proceedings.” The author did point out that profiling could be admissible in a coronial inquest, if the coroner determined that the evidence was relevant to the matters being determined.

Internationally, profiling has had mixed success in being admitted to evidence. Even in the United States, where profiling is best accepted, and where it has been admitted more than in other jurisdictions, its acceptance by courts has been limited. In a British case which reviewed the US Case law, it was noted that of the then 17 occasions in the United States where profiling evidence had been admitted, the decision had been overturned on appeal. The British cases are significant because the profiling evidence in question has reflected the opinions of highly qualified psychologists and psychiatrists, but the evidence has been excluded on the basis that “evidence based on developing a new brand of science or medicine is not admissible until accepted by the scientific community as being able to provide accurate and reliable opinion.”

One study (Gudjonsson, G. and Copson, G. 1999) reviewed 90 cases where profiling had been employed during the investigation, and found that profiling was an issue in only six of the cases, and only two profilers were actually reached the courtroom. Another review (Gregory 2005) stated that “profiling has never been admissible in the British legal system as expert evidence, because of the definitional problems and disagreements about

25 Legal Advice: Request for legal advising from Legal Services concerning the establishment of a Behavioural Sciences Unit” within the NSW Police Force and the implications of utilizing the resources both of an ICIAF “Criminal Profiler” and a “Psychologist”, 29 January 2004, Ref 04/00156.
27 Ibid: 25.
the scientific knowledge base.” In the only two published cases in Britain, R v Stagg and R v Gilfoyle, profiling was ruled inadmissible.

In the United States, there is a more substantial cases law on profiling and detailed reviews can be found in Meyer (2007), Risinger and Loop (2002) and Petherick, et al. (2006). Profiling has had mixed acceptance in the US courts and has been most likely to be helpful in establishing “probable cause” for the purpose of obtaining a warrant, at least when taken together with enough other evidence. As the US District Court for the Middle District of Louisiana commented:

It is important to note that the mere fact that the plaintiff met certain elements of an FBI profile would not suffice to establish probable cause for obtaining a warrant. This is especially true when the profile was so broad and vague that it cast a net of suspicion over thousands of citizens. Nevertheless, considering [the detectives] conducted an additional investigation and used the profile only as a single factor, the Court finds there was sufficient probable cause (Quoted in Myer 2007: 230)

A recent opinion offered was in the case of United States of America v Gordon Elliott Thomas. The case concerned a bail hearing involving Thomas, who had been charged with sexual exploitation of a child and receipt and possession of child pornography. The case concluded in 2003, but in January 2006 the judge published an opinion that “memorializes and supplements” the bench ruling, citing the “paucity of reported decisions in this area and necessity for prompt and abbreviated decision making in detention proceedings,” as the reason for “the course has set fourth in greater detail the existing law and scientific research on the assessment of future dangerousness or accused sex offenders.” To my knowledge, this case has not yet been subject to discussion or analysis in the extant profiling literature, and so it is of interest in reflecting an up to date summary of criminal investigative analysis from the point of view of US case law.

In the case, the prosecution put forward as its principal witness Supervising Special Agent Jim Clemente of the FBI, who offered evidence that the insights of Criminal Investigative Analysis, in combination with his expertise as an investigator of sexual offenders, supported the view that preferential offenders like Thomas were much more likely to re-offend than situational offenders.

Clemente cited as the basis for his opinions his experience as a criminal investigator, the institutional knowledge of the FBI, and a study of inmates in a sex offender treatment program. The court commented that:

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When questioned by the Court regarding the basis for his risk assessment as to this defendant, SSA Clement was unable to explain how his methods or techniques had been error-checked or peer reviewed for accuracy and reliability.

In the opinion the Court went on to consider Clemente’s risk assessment in terms of the reliability and validity of the FBI methodology, the status of the ICIAF and its body of knowledge, and the Americal case law on expert evidence, which had reached its most developed expression in the Daubert decision, which set standards for scientific evidence and the Kumho Tyres decision, which extended these standards to all expert evidence. The court noted that the FBI experts had considerable authority, and consequently it was necessary to establish the reliability of their expert testimony, and quoted one paper which observed that:

There appears to be only one area in which Daubert is not being rigorously applied to behavioral science testimony … [which is] ‘expert opinions’ offered by law enforcement officers based on their years of experience in the field when they offer opinions with regard to modus operandi or other aspects of the … criminal mind …. Explorations into their theoretical knowledge base, as well as the validity of both their methodologies and their conclusions, appear to have escaped Daubert review (Fradella et al. 2003: 404-444).

The opinion in this case is significant because it is the first case that comprehensively reviews the merits of profiling evidence and the ICIAF methodology in terms of current US Law on expert evidence. Even though the case focuses on risk assessment of a child sexual offender, in doing so the grounds for considering the FBI methodology to be reliable and valid are clarified.

In regard to the reliability of Clemente’s evidence, the court found that:

- Clemente was unable to demonstrate that the risk assessment had been or could be tested. He asserted that the method was “outside of scientific analysis.”

- His testimony regarding the typology of the preferential and situational sex offender, which was the foundation of his analysis, was based entirely on anecdotal case studies and interviews, and lacked an adequate basis in published peer reviewed research.

- No literature was offered demonstrating that the methodology had been subject to peer review analysis. While Clemente claimed that the typology was “accepted” by the International Criminal Investigative Analyst Fellowship as a “good model

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29 These points are paraphrased from the opinion in question, see the previous note.
Criminal Profiling, Problems and Prospects, December 2009
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for analysing for criminal purposes the behaviour of child sex offenders,” the Court did not accept that this constituted meaningful peer review.

- Clemente was unable to explain what the error rate of his risk assessment technique might be.

- There was no evidence as to the existence of any standards controlling the operation of the risk assessment methodology in particular or of criminal investigative analysis in general.

These points underline the dilemma for the FBI/ICIAF model: it is founded on investigative experience, common sense and intuition, but following Daubert and Kuhmo Tyres, the courts increasingly require that expert evidence meets basic scientific standards and can be shown to be effective via evaluation. There is a substantial literature in psychology and forensic science (Grove and Meehl 1996, Faigmann et al. 1997) that shows that subjective or impressionistic methods of diagnosis or prediction consistently fail to demonstrate the same accuracy as do methods based on statistical analysis or the development of empirically derived algorithmic or actuarial techniques. In fact, in psychology, the superiority of actuarial methods is overwhelmingly supported by the research evidence (Grove and Meehl 1996: 3).

It is sometimes asserted that profiling may be a useful investigative technique, even if it is subsequently not admissible (see for example, Judge Crispin’s comments above). However, evidentiary concerns expressed by the courts, and reflected in legislation governing the admissibility of expert and opinion evidence, raise concerns about the credibility of profiles and of the qualifications of profilers, that are surely just as relevant to profiling in practice as to profiles as evidence. If there are good grounds for the courts to question whether profiling and profilers can offer reliable and valid evidence in the legal setting, then there are just as good grounds to consider that profiles do not have sufficient validity to reliably inform the investigative process. These concerns are borne out in the following review of profiling in practice.

**PROFILING IN PRACTICE: SUCCESSES AND DISASTERS**

At times, profilers have countered criticism of the scientific basis of profiling by asserting that profiling is an art, providing insights based on the accumulated knowledge and experience of criminal investigators. This view has been commonly put by the FBI pioneers, with Douglas (Douglas and Olshaker 1996: 151) even implying that there may even be a psychic component involved:
What I try to do with a case is to take in all the evidence I have to work with—the case reports, the crime scene photos and descriptions, the victim statements or autopsy protocols—and then put myself mentally and emotionally in the head of the offender. Exactly how this happens, I’m not sure, ... If there is a psychic component to this, I won’t run a way from it, though I regard it more in the realm of creative thinking.

As Risinger and Loop (2002: 241-2) comment, the claim appears to be that profilers can beat the odds as a result of experience and intuition, and that this approach, in the right hands, can be more successful than objective scientific methods that require that judgements be validated by data or reasoning. Of course, such claims for the priority of intuition and insight are characteristic of a range of practices, from dowsing to astrology to diagnostics, and there is a tradition of forensic / legal scholarship (see Faigman, et al. 1997) which is devoted to establishing the objectivity and reliability of a range of expert judgements about such topics as bite marks, handwriting identification, foot and tyre prints and analysis of hairs and fibres.

Such issues impact considerably on the potential admissibility of profiling evidence — since courts are unlikely to allow a subjective opinion into evidence, instead insisting that expert evidence reflects the judgment of a qualified person in a field that is established as a science. However, it is still possible that profiling is a useful adjunct to investigation, in narrowing the field of inquiry, suggesting potential leads or investigative strategies. In other words, even if profiling is a scientifically doubtful process, if it produces accurate profiles that make useful contributions to criminal investigations, then it could be said to have value.

The best practical evidence for the value of profiling would be case studies that demonstrate that a profile made some contribution to solving a case. This might range from cases where the profile was a critical factor, through cases where the profile made some contribution, with the least convincing evidence being that the profile did not make a contribution to resolving the cases, but after the offender was arrested, proved in retrospect to be accurate or somewhat accurate. Unfortunately, in all of the voluminous literature about profiling, and the case studies contained in profiler’s memoirs, the great majority of cases appear to fit in this third category. That is, the profile appeared to be somewhat accurate after the case was resolved by other means. Of greater concern are those cases where the profile appeared to impede the resolution of a case, or contribute to a miscarriage of justice. It is of concern that the annals of profiling contain a number of such cases.

According to one commentator, the case of Arthur Shawcross may be one of the only cases in which profiling actually assisted in the apprehension of the offender. Arthur

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Shawcross was apprehended at the end of a series of murders of prostitutes when police decided to leave then last body in situ because the profile suggested that the offender might return to the scene. Shawcross was observed masturbating in his car on a bridge near the crime scene, and was arrested and eventually confessed in custody. It is interesting that this aspect of the Shawcroft case is not highlighted in Douglas or Ressler’s books, which instead focus on the impact of Shawcroft’s mental illness on his defence. Indeed, other accounts of the case suggest that Shawcroft was observed in his car near the final crime scene during the search for the body, not as a result of deliberate strategy to conduct surveillance for an offender returning to the scene of the crime. If this was the case, then it is obvious that the profile was not an important factor in the arrest of the offender.

Another example where the profile may have led to the apprehension of the offender was the murder by Carmine Calabro of a special-education teacher on the roof of her Bronx apartment building (see Douglas and Olshaker 1986: 162-168). In this case the profile appeared to be an important factor in reducing the suspect list and identifying a prime suspect, later turning out to be quite accurate. However, as Gladwell (2007) suggests “the police already had Calabro on their list of suspects: if you’re looking for the person who killed and mutilated someone on the roof, you don’t need a profiler to tell you to check out the dishevelled, mentally ill guy living with his father on the fourth floor.”

In many cases where it is alleged that a profile was of assistance in a case, the actual breakthrough had nothing to do with the profile, and the accuracy or otherwise of the profile could only be determined after resolution through another method. Baeza summarises some high profile cases in the following terms:

- **Theodore Bundy**: Apprehended the first time after a police officer stopped his vehicle because it looked suspicious. A pair of handcuffs, a mask and other items were found in the vehicle and Bundy was arrested on suspicion of burglary. After escaping from jail, he was apprehended once again while driving a stolen vehicle in Florida.

- **Jeffrey Dahmer**: Dahmer was apprehended when Tracy Edwards escaped his control. Edwards, who still had a handcuff attached to one wrist, reported that Dahmer had handcuffed him. The police responded when Dahmer went to get the handcuff key they saw photographs of dismembered body parts. After a struggle, he was arrested.

32 See, for example, discussion of the Shawcroft case at www.crimeandinvestigation.co.uk and www.crimelibrary.com.
33 www.criminalprofiling.ch/feedback.html
Superficially, cases where the profile is later shown to be accurate or partly accurate would appear to provide evidence that supports profiling in general, on the grounds that it can be shown to successfully identify some of the characteristics of the offender. A good example is the Green River case. Garry Ridgway is regarded as the most prolific serial killer in U.S. history, and admitted the murder of 48 women, mainly prostitutes over a 22 year period. In the end, Ridgway was apprehended as a result DNA analysis, and a profile prepared by John Douglas was found to be reasonably accurate (Levi-Minzi and Shields, 2007). However, unless profiles can be shown to make some kind of practical contribution to an investigation, then the fact that after a case is resolved the profile can be seen to have accurately described something about the offender does nothing to establish profiling’s utility as an investigative tool.

The issue of accuracy has not been subject of detailed research. The FBI conducted a “customer satisfaction survey” that has never been published, and have claimed that profiles “helped in the identification” of suspects in 17 per cent of cases. Since fewer than half the cases were solved, this translates into a success rate of 7.8 per cent (Risinger and Loop 2002: 245). Risinger and Loop (2002: 251-2) are particularly critical of the FBI for not undertaking detailed research on this question. They comment that the FBI apparently possess detailed records containing every written profile generated by their members, and it would be possible to develop research generate statistical accuracy and error rates for each variable commonly identified in the profile, as well as a measure of global accuracy. “Until such an effort is undertaken,” they comment, “their [the FBI]
claims to some mystical level of accuracy ought to be regarded more as a form of self-promoting science fiction than as fact.”

In the UK, the Metropolitan police established a research program to investigate the operational usefulness of offender profiling. Noting that “the marketing of offender profiling was in danger of exceeding the product,” the Commander of the Metropolitan Police noted that while profiling could be pursued as an end in itself, “for the police service the objective of profiling must be to assist in serious crime investigations, especially … those … in which traditional victim oriented approaches often do not lead to the identification of the offender” (Copson 1995: iii). Copson conducted a survey of British police who had used profilers, and analysed the degree with which the profile assisted in the resolution of the investigation. In all he compiled information on nearly 200 cases.

The results of Copson’s study were mixed. Many detectives thought that the profile was useful in furthering their understanding of a case or an offender, or confirmed their own judgements. The reported benefits of profiling did not to any significant degree include the identification of the offender, with only 2.7 per cent reporting that the profile led to the identification of the offender, and only 14.1 per cent reporting that the profile assisted in solving the case. However, 82.6 per cent reported that the profile had proved operationally useful (Copson 1995: 20-21, 29). It was concluded that operational profiling was a service that is “more likely to assist indirectly than directly in solving a case,” (ibid: 31).

It is of interest that no studies of the actual effectiveness or accuracy of profiles, particularly in the context of their contribution to the resolution of investigations, have been published by the UK based investigative psychologists. They have produced a number of interesting papers on the logic of profiling (Alison, West and Goodwill 2004, Alison, Smith, Eastman and Rainbow 2003), and on the psychology of the interpretation of claims in offender profiles (eg Villejoubert, Almond and Alison 2008), but have not addressed the more fundamental question of how accurate profiles are in practice.

While it is very hard to find definitive cases where a profile materially assisted in the resolution of a case, there are a number of examples where profiles sidetracked investigations or even contributed to the arrest of the wrong offender. In a local case, the investigation of a series of murders of older women in Sydney was focussed for a time on young offenders, partly due to a lack of good leads, some reports of young men acting suspiciously around the scene, and also because a profile provided by a forensic psychiatrist (Kennedy and Whittaker 1992) predicted that the offender would most likely be a younger person. The offender, of course, turned out to be a middle aged man. To the credit of the investigators in this case, they did have some suspicions about an older grey-haired offender, and the focus on younger offenders did not preclude an exhaustive follow up of many other lines of inquiry, many of a dubious nature. In this case there were hundreds of leads from the public, from prisoners to psychologists and psychiatrists and psychics, all of which had to be followed up, and which consumed much energy and time.
However, there are a number of overseas cases were a profile, combined with investigative enthusiasm, have derailed investigations or even contributed to miscarriages of justice. One of the most famous was in cases of a bombing at Atlanta Olympics in 1996. A security guard, Richard Jewell, had discovered the bomb and begun moving spectators to safety, but the bomb exploded, resulting in the death of two people and 111 injuries. Jewell was initially hailed as a hero, but a profile of a “lone bomber” led to the FBI identifying him as a person of interest in the inquiry. Unfortunately, this fact was leaked to the press, and led to a media storm in which Jewell was essentially crucified by the media (Rostrow 2003). This case has subsequently become a classic in the study of journalistic ethics, but also illustrates the risks involved in investigators leaking case material to the media on tactical grounds. In the end, the case was solved as a result of the investigation of a series of bombings at abortion clinics, and the real offender, Eric Rudolf plead guilty after being arrested in 2003. Profiling appears to have had little impact on the resolution of the case, other than to focus investigative effort on the wrong suspect.34

Less well known as a failure of a profile was the case of Kirk Bloodsworth, who in 1993 was the first prisoner released from death row or murder as a result of DNA examination of original crime scene evidence. Bloodsworth had twice been found guilty of the rape and murder of a nine year old girl in 1984, and had been sentenced to death after the first trial. Both convictions relied primarily on circumstantial evidence. The FBI had not found useful forensic evidence during the original investigation, and had even missed semen stains on the girl’s underwear. These were later decisive when analysed by more contemporary DNA methods, which implicated a fellow inmate of Bloodsworth’s in the jail in which he was awaiting his sentence. The profile was a critical factor in the original investigation:

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\text{The Psychological profile played a very significant role. The report became the Rosetta stone for Detectives Capel and Ramsey. It caused them to single out a suspect who had previously received scant attention and later helped convince both of them and the state prosecutors involved that this suspect truly was the murderer. The psychological profile became an important part of the foundation for their unwavering belief that the man they arrested was guilty of the Dawn Hamilton slaying (Junkin 2004: 75)}
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The case of the Baton Rouge killer35 is interesting because of the conflict between profile and eye-witness evidence and the use of new DNA techniques that subsequently proved decisive. A series of murders occurred in Baton Rouge Louisiana in 2003 and 2003. An eyewitness account and a profile suggested that the killer was a young white man who

35 The case is summarized in Newsome (2007) and Abraham (2005).
drove a pickup, and a great deal of investigative effort was put into the search for a suspect who fitted the profile. The possibility of a black offender was discounted, even though a woman had reported to the investigators her suspicions about the possible involvement of a black man called Derrick Lee, who had an extensive record for domestic violence and who had stalked her for two years. Investigators obtained DNA from nearly 1,200 white men and spent months and more than a million dollars analysing the samples against the killers DNA, with no result.

Eventually, the investigators had the killer’s DNA analysed by a lab in the United States which claims to accurately predict person’s racial background from DNA, and the analysis suggested that the Baton Rouge serial killer would be 85 per cent Sub-Saharan African ancestry and 15 per cent native American ancestry. As a result of this analysis, a warrant was obtained to collect a DNA sample from Derrick Lee, and he was linked to the four murders and other sexual offences, arrested and convicted (Wade 2003).

This case is of interest because it indicates that advances in DNA technology are likely to impact on the domain of profiling, if it becomes possible to produce reliable information about the physical characteristics of unknown offenders from crime scene DNA. These developments are certainly socially controversial, but the science is becoming well established, with the lab that was involved in the Derrick Lee case now developing technology also working on tests to predict eye-colour and other physical characteristics from suspect DNA.

The tendency of profiles to be implemented in the development of investigatory “tunnel vision,” was also evident in the Marin Case in Canada. In 1992 Guy Paul Marin of Ontario was found guilty of the murder of his next door neighbour, nine year old Christine Jessop in 1984. Morin’s conviction was controversial because it was obtained after he had been acquitted at the original trial in 1986, and retried under Canadian law that provides for the possibility of an appeal by the Crown after an unsuccessful prosecution. The Crown was able to argue successfully that the original trial judge had made a fundamental error prejudicing the Crown’s right for a fair trial, and Morin was subsequently re-tried and found guilty, somewhat against the expectations of the media and other observers. In 1995 improved DNA technology was used to exclude Marin as the murderer, and he was allowed to appeal his conviction and acquitted by direction in 1996. The case raised fundamental questions about the integrity of the administration of justice in Ontario, and was the subject of a commission of inquiry that reported in March 1998 (Kaufman 1998).

The Kaufmann Inquiry identified a range of problems with the Marin case, involving the investigation and in particular the use of forensic evidence. Relevant to this review is that the Commissioner identified persistent “tunnel vision” on behalf of the detectives.

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36 DNA Print Genomics, see www.dnaprint.com.
37 See, for example Tang et al. (2005), which describes a methodology for accurately ascribing geo-ethnic heritage by DNA analysis.
38 See www.dnaprint.com. DNA Print Genomics ceased trading in early 2009. See below for a discussion of other research aimed at prediction of phenotype from DNA.
involved in the case, tunnel vision that continued to be evident after Mr Marin was acquitted. This tunnel vision was a factor in the use of an FBI profile provided by John Douglas. The Commission found that the profile was used by the detectives to confirm their own strongly held view that Marin was the offender, and that they ignored aspects of the profile that did not match Morin:

... though features of the profile did parallel Guy Paul Morin, it could not reasonably be said that the profile matched or even closely resembled Guy Paul Morin. This did not cause any introspection on the part of the officers. Indeed, Inspector Shephard was asked what it would have taken for the profile to be have pointed away from Guy Paul Morin. His candid, and very significant answer at this Inquiry was that: “If they said a female was responsible ... probably we would have looked in the other direction. (Kaufman 1998: 846)

Once the investigators had the profile, they tailored it so that it fitted Morin more closely and then released it to the public in order to “spook” Morin. In doing so, the Commissioner observed that they had ensured that Morin could never get a fair trial as it would be obvious to members of the public who knew Morin would have readily identified him from it. It was also of great concern that the fact that the profile had been modified in this way had not been brought to the attention at the original trials.

Kaufman (1998: 1223) made a number of recommendations in regard to profiling, including the following:
Recommendation 110: Limitations on Criminal Profiling.
Police officers should be trained as to the appropriate use of, and limitations upon, criminal profiling. Undue reliance on profiling can misdirect an investigation. Profiling once a suspect is identified can be misleading and dangerous, as the investigators’ summary of relevant facts may be coloured by their suspicions. A profile may generate idea for further investigation and, to that extent, it can be an investigative tool. But it is no substitute for a full and complete investigation, untainted by preconceptions or stereotypical thinking.

The final case I will consider in this review is that of Colin Stagg, which is one of the few cases where profiling has been introduced into evidence in the United Kingdom, unfortunately with disastrous results for the prosecution. Arguably, this is also a case where the problem was the development of “tunnel vision” by detectives, with the profile exercising a significant influence on this process.

The case involved the brutal murder and sexual assault of a young mother, Rachel Nickel on Wimbledon Common in 1992. Nickel was stabbed 49 times and her body dragged into the undergrowth. Nickel had been walking her dog in company with her two year old son, who was later discovered clinging to his mother’s blood soaked body and pleading for her to get up. This murder caused a sensation, and the investigation was London’s biggest ever man hunt, with 32 arrests being made and a total of 548 possible suspects being examined.

In this case, the decision by Mr Justice Ognall provides a useful summary. Stagg was one of many suspects arrested and questioned about the offence. During three days of interrogation he was able to give a full account of his movements on the day in question and denied being responsible. No evidence was found at his home and so he was eventually released.

Stagg became a suspect as a result of information from a woman with whom he had corresponded after answering an advertisement in a lonely hearts column. The woman had broken off correspondence after he sent her a letter that contained explicit sexual content. Alerted by the publicity surrounding the murder and investigation, the woman came forward to the police in regard to the correspondence. A clinical psychologist, Mr Paul Britton, had prepared a profile of the offender from crime scene and other evidence, and had predicted that the offender would exhibit a number of unusual sexual

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40 R v Colin Stagg, copy provided courtesy of Dr Wayne Petherick, Bond University. This account depends substantially on Justice Ognall’s decision, except were indicated.
idiosyncrasies, would indulge in extreme sexual fantasies, and that the fantasies could lead him to discuss and finally confess to the murder.

Stagg’s correspondence, combined with the profile, apparently convinced the investigators that Stagg was guilty of the murders. Subsequently, under the direction of Britten, and undercover operation was mounted that involved a police woman introducing herself, initially by letter to Stagg, on the pretence that she was a friend of the original woman, and seen Stagg’s letters, and was intrigued and stimulated by their sexual content. Following the initiation of contact by letter and telephone, the undercover officer commenced meeting Stagg. It was hoped that the development of a relationship between Stagg and the undercover officer, would lead to discussion of fantasies and eventually a confession. While Britten originally predicted that it would not take long for the undercover operation to come to a successful conclusion, in the end the operation extended over 28 weeks, during which time Stagg repeatedly denied being the murderer. The undercover officer went so far as to dictate on tape a highly explicit fantasy involving male domination, group sex and the use by the man of a knife in a sexual manner. This was sent to Stagg with the intention of promoting from him fantasies consistent with the profile, and to initiate discussions that would lead to him confessing to the murder.

According to Edwards (1998 – quoted in Turvey 2002) the undercover police officer confessed to the ritual murder of a baby and young woman, and egged Stagg on to match her stories; even telling him that she wished he were Nickell’s murder because “that’s the kind of man I want.” In the end Stagg – desperate to maintain a relationship with the undercover officer – came up with fantasies that were modelled on information fed to him by the investigation, but which were incorrect in significant aspects, including the location of the crime and the assertion that the victim had been raped. The defence submitted that the accused was subject to deliberate and sustained entrapment and his responses were the subject of constant and effective manipulation.

Justice Ognall commented that it was disgraceful conduct for a police officer to prepare and dispatch this tape, even if she was acting under orders and the police were acting under advice of a psychologist. He said:

I would be the first to acknowledge the very great pressures on the police in their pursuit of this grave inquiry, but I am afraid that this behaviour betrays not merely an excess of zeal but a substantial attempt to incriminate a suspect by positive and deceptive conduct of the grossest kind.
He concluded that:

The notion that a psychological profile is in any circumstances admissible in proof of identity is to my mind redolent with considerable danger: first because of the rule of evidence going solely to propensity; second because the suggested analogy between this case and the authorities on so-called similar fact evidence is prima facie highly questionable, and third because of the question of whether this is truly described as expert evidence at all.

Stagg was acquitted after most of the evidence was excluded by the Judge, and Britten, the psychologist, was subject to disciplinary action by the British Psychological Society which was later dropped. It has been estimated that the case cost the Metropolitan Police three million pounds. The undercover officer returned to work but went off sick and later resigned, never having recovered from the ordeal of the protracted 7 month operation. She subsequently received 125,000 pounds in compensation from the Metropolitan Police (Campbell 2006). In 2006 an analysis made possible by advances in DNA technology led police to question a suspect who was an inmate at Broadmoor prison (Benetto 2006, Raif 2008). Eventually, in 2008 Robert Napper pled guilty to the murders, and Stagg was awarded a substantial compensation payout.41

According to Canter, the case highlights that focussing all attention on one suspect, as well as relying too much on flawed “expert” opinion, are dangerous tactics in investigations (cited in Campbell 2006). Like the other cases discussed in this section, the case demonstrates how powerful “tunnel vision” can become in such highly charged circumstances. One commentator (Cohen 2006) has discussed how the psychologist, police and tabloid newspapers combined to create an environment where Stagg could be considered a “sacrificial lamb.” Cohen spoke to some of the detectives and media involved and recounts how they were convinced of Stagg’s guilt, and shocked that DNA evidence had recently pointed to another offender – “shocked and a little ashamed, because what all those off-the-record briefings produced was a police-approved Stagg hunt led by a pack of C-list celebs and thoughtless hacks.”

Supporters of profiling could raise the objection that all these problems came about as a result of the uncritical application of the profile by the investigators, and is not the fault of the profilers, whose methodology requires that the limitations of the profile are clearly stated. The Stagg case obviously had the full participation of the profiler, but as noted in the Marin case, the disclaimer on the profile by Douglas was patently ignored by the detectives. However, there are deeper issues here, as discussed by Risinger and Loop (2002: 237, 283). A characteristic of the practice oriented literature on profiling is the positive sense of authority conveyed in regard to the process, with little reference to any evidence supporting the assertions, or for that matter the conceptually or ethically

problematic aspects of profiling. The FBI and the famous profilers who are associated with the FBI model have carefully cultivated an image of accuracy and effectiveness that is not supported by evidence or analysis. This mystique has been enthusiastically entrenched in popular culture, and as a result, it is easy for investigators, involved in a difficult or perplexing investigation, to suffer from confirmation bias, where the elements of a profile favourable to a case are emphasised, and not much attention is paid to those elements of a profile that are wrong, trivial or simply irrelevant.

FUTURE PROSPECTS

Research on the psychology of different categories of offenders has continued over recent years, and has certainly added much to the scientific understanding of serious violent offenders, as well as the impact of mental illness on risk of offending. Some recent research is breathtaking in its scope, such as the Dunedin Multidisciplinary Health and Development Study, which followed up all children born in Dunedin in New Zealand in the 12 months from 1 April 1972. This very wide ranging study has addressed many issues of interest, from the point of view of a very large and comprehensive cohort sample, with a very low drop-out rate over the course of the study. One important part of the study was the analysis of relationships between mental health and violence. It was found that people with mental disorders account for a significant amount of violence in the community, but different mental disorders are linked to violence via different causal paths. This research has also described very interesting links between substance use and mental health (see Arseneault, et al. 2000). Other relevant findings from the Dundin study have explored linkages between genetics and environmental factors in childhood, showing that there are strong associations between genetically determined variations in brain chemistry, childhood maltreatment and subsequent conduct disorder in childhood and later violence (Crespi et al. 2002).

The Dunedin study has also provided important insights into relationships between different categories of anti-social behaviour and violent offending (Moffitt et al. 2002). Early on, males with two kinds of anti-social orientation were identified — one group where anti-social traits became apparent early in life, and another group were anti-social behaviour and conduct problems manifested in adolescence. It was hypothesised that while there would be relatively few early onset anti-socials, their behaviour would be persistent over their life course and serious. On the other hand, adolescent onset anti-socials would tend to be relatively common, their antisocial behaviour would be less serious, and individuals would tend to mature out of anti-social behaviour. In both cases, it was hypothesised that there were significant interactions between individuals’ psychological orientation and their social environment, with the most deleterious outcomes being associated with combinations of inherited or acquired neurological variation and poor environmental conditions in early life (Moffitt, et al. 2002: 180).

For example, participants are flown from wherever they now live in the world back to Dunedin for periodic assessments.
When the cohort were followed up at age 26, it was found that the life course persistent anti-socials were responsible for a considerable percentage of the self reported and officially recorded delinquency in the sample. Significantly, they were responsible for the majority of the self reported and officially recorded violence — 38 per cent of this group had been convicted of a violent offence at age 26, compared to 5 per cent of the control group. Eleven percent had been convicted of serious violence against women. In total, the life course persistent anti-socials comprised 10 per cent of the cohort, but were responsible for 53 per cent of the self reported violent offences recorded during the past year (Moffitt et al. 2002: 185-191).

This research gives a useful insight into the psychopathology of these violent, persistent and prolific offenders. It also usefully describes the interactions between childhood environmental factors and the psychological orientation. There is a growing literature that is exploring in more details the way in which genes and environment interact in the development of patterns of behaviour associated with criminal behaviour (Dodge 2009, Raine 2008). Recent papers have examined the role of MAOA in fraudulent behaviours (Beaver and Holtfreter 1009) and credit card debt (De Neve and Fowler 2009), as well as gang membership (Beaver, DeLisi, Vaughan and Barnes 2009). However, it is unclear whether such insights are of much assistance in terms of developing a more grounded and rigorous approach to profiling. It is of significance, however, that testimony regarding MAOA genotyping is starting to introduced into criminal trials, albeit on a limited basis at present (Bernet et al. 2007).

In spite of such developments in the understanding of relationships between mental health and violence, recent reviews suggest that much needs to be done, particularly in terms of distinguishing between subgroups of people with psychosis and violence, and in describing the pathways towards psychosis generally, psychosis and violence, and between psychotic symptoms and violence (Taylor, 2007: 4). Similarly, there is little information about the prevalence of sexual deviance in the community, or of the relationship between sexual deviance, paraphilia and offending (Grubin 2007: 6). Research that has examined the influence of cultural and socio-economic factors on the incidence of serial homicide (DeFronzo et al. 2006) has not as yet uncovered relationships between the cultural and socio-economic environments and the nature and incidence of serial murder that would be useful in informing a valid model of criminal profiling. In other words, while there has been significant progress since the days of the FBI serial killer study, the basic scientific information that would be required for the development of a valid and reliable science of profiling is not yet available.

This is emphasised in Hicks and Sales (2006), who set out in some detail what is required for the development of a valid and scientific approach to profiling. Progress is required in three fields: developments in the evaluation of crime scene evidence so that it can provide reliable and valid predictions about behaviours, methods of relating information from crime reconstruction to the motives, personality characteristics and behaviours of known offenders, and finally methods for testing profiling predictions (Hicks and Sales, 2006: 131-134). While there have been recent developments in the methodology of crime scene reconstruction (Turvey 2007), the research required to develop “a new
literature of personality that can inform a science of profiling” does not exist, and as Hicks and Sales (2006; 206) note, it will be a great challenge to develop it.

DNA AND PROFILING

In four of the cases discussed in the section on profiling in practice, DNA technology was critical in resolving cases where profiles were implicated in the identification of the wrong suspect, and in some cases contributed to significant miscarriages of justice. This mirrors the broader impact of DNA on the criminal justice process. DNA identification has over the last 20 years revolutionised the criminal investigation, through the provision of substantially more reliable method of forensic individuation than techniques previously available. DNA technology has matured significantly since its introduction, and it is now possible to develop accurate profiles from trace amounts of trace DNA materials (Budowle and van Daal 2009), even in relatively old samples. This feature of DNA technology has been critical in cold case investigations and has been instrumental in clearing many unsolved homicides and sexual assaults.

Just as DNA has made a significant impact on prosecution, it has also highlighted a significant number of cases where innocent people had been convicted. The innocence project in the USA documents 245 post conviction exonerations that were based on new DNA analysis of crime scene evidence. In some 40 per cent of the cases, the DNA analysis identified the actual perpetrators. In the process, these cases have raised questions about the reliability and validity of forensic individuation procedures that were admitted as evidence in some of the original convictions. These techniques include bite mark analysis, footprint and tyre mark analysis, ballistics, and handwriting evidence (Fischer 2008). The cases where eye-witness identification was a factor in the original conviction have underlined the validity of a substantial body of psychological research which establishes just how unreliable such testimony can be (Loftus 1996). In the same time period, the US Supreme Court decisions of Daubert and Kuhmo Tires established more rigorous conditions for the admission of expert evidence, and as a result defence were more likely to questions both the scientific validity of the techniques, and the qualifications and experience of the experts called by the prosecution to give evidence on these techniques. On both grounds, many forensic individuation procedures that have been commonly employed in criminal justice have been found wanting.

Recently, the National Academy of Science published a review of the current state of forensic science in the United States, which recommends significant reforms that would establish and maintain standards within the forensic science community. The report finds a range of problems around funding and resourcing, training, standardisation and certification, interpretation of forensic evidence, and lack of evidence base and measures of performance. The reforms are aimed at “upgrading of systems and organizational structures, better training, widespread adoption of uniform and enforceable best practice,

and mandatory certification and accreditation of practitioners (Committee on Identifying the Needs of the Forensic Science Community 2009).

While the NAS are appropriately restrained in its rhetoric, other commentators are more forthcoming. According to Saks and Faigman (2008: 149) “a group of nonscience forensic sciences has developed over the past century. These are fields within the broader forensic sciences that have little of no basis in actual sciences. They are not applications of established basic sciences, they have not systematically tested their own hypotheses, and they make unsupported and exaggerated claims.” In an entertaining volume, Fischer (2009) provides a lengthy catalogue of bad forensic analysis by poorly qualified, incompetent, and often deceitful forensic examiners who had lost professional detachment and act as adjuncts to the prosecution rather than independent authorities offering expert judgements.

As Saks and Koehler (2005) have pointed out, DNA has been relatively immune from these criticisms, as the technology was founded on a well established core scientific discipline with a foundation in peer review literature, was subject to intense scrutiny by the courts in its early days, and offered a data based probabilistic assessment of its matches, which was an improvement over the match-no match methodology of many of the existing forensic individuation science.44

By analogy, it is obvious that profiling is in a similar situation to a range of other forensic techniques which have recently come under scrutiny. It is possible to argue that profiling is in an even worse position than other forensic individuation techniques when it comes to the existence of a scientific body of knowledge that underpins its practice and provides validation of its results. DNA goes directly to the question of provision of a reliable identification from crime scene evidence. The hit rate for DNA will improve as numbers of profiles in national databases increase, and as techniques such as familial matching (if there is no direct match to an offender’s DNA, familial DNA analysis can identify persons on the database who are members of the offender’s extended family.45

The expansion of the number of records on DNA databases has been substantial. In the United States there were 7,434,897 offender profiles and 285,425 forensic profiles on the United States National DNA Index as at September 2009.46 In the UK, the National DNA Database contained 5,056,740 records at 31 March 2009 (NPIA 2009), comprising 8.25 per cent of the population of the UK, and making it the most comprehensive forensic DNA database in the world. While the UK DNA database has been remarkably successful, with almost 6 in 10 crime scene profiles being matched to a subject profile in 2007-8 (NPIA 2009: 5), the large numbers of profiles on the data base has been controversial. In particular, the UK practice of retaining DNA records of people who

44 This is not to say that DNA is foolproof. There are a number of examples poor laboratory techniques which have led to error in DNA analysis. A recent local example is reported in Robotham and Jacobsen (2009).

45 See Lerch, Burke and Owen for an overview of familial DNA in investigation. Budowle and van Daal (2009) report that current DNA databases based on STR (Short Tandem Repeat) loci have the potential to produce strong associations between unrelated people. The use of more genetic markers to allow more accurate searching of matches is one solution.

have been arrested but not convicted has been subject of considerable scrutiny and criticism, and has been considered by the UK High Court, and the European Court of Human Rights.47

It has been argued that familial matching potentially has a differential impact on groups which have large extended families, such as the Hispanic community in the USA, because a match to a member of that community will impact on larger number of people (Grimm 2007). Nonetheless, it is likely that use of DNA to predict the ethno-geographic background of a suspect will be even more controversial. This technology already exists, having made a significant contribution to the resolution of the Baton Rouge case already discussed. Some commentators have argued that these developments “are ushering in an era of molecular reinscription of race in the biological sciences” (Duster 2006). Nonetheless, research into genetic markers of continental origin (Kersbergen, et al. 2009) and ancestry informative markers continues apace (Budowle and van Daal 2008). These are so specific that it is claimed that genetic tests can distinguished between specific regional European ancestry (South-eastern Europe, Continental Europe and North-Eastern Europe (ibid), and it is only a matter of time before further research involving the identification of markers and the validation against wider population sets allows the development of relatively accurate methods of assessing ancestry probabilities for people from a wide range of ancestries (Kersbergen et al 2009). Such methods will be an obvious improvement on profiling, which in a number of the cases reviewed earlier, has been remarkably unsuccessful at ascertaining the ethno-geographic background of offenders.

Finally, research is addressing the extent to which phenotype (the observable characteristics or traits of an organism) might be predicted from a DNA profile. Traditional DNA databases are based on non-coding DNA, that can’t be used to predict characteristics of suspects (Budowle and van Daal 2008), so these techniques are not applicable to material already held in the databases. Budowle and van Daal (2008) note ancestry informative markers can convey indirect measures of the appearance of individuals, based on their bio-geographic ancestry (as in the Baton Rouge case discussed earlier where the DNA evidence suggested a suspect of African American appearance). Research is now underway to identify genetic polymorphisms related to characteristics such as colouring, height and facial features, all of which are highly heritable (ibid). The expression of these features involves a combination of genes and environment, and often there are many genes involved, so the scientific issues are complex. However, as Budowle and van Daal (2008: 607) note:

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47 S and Marper v UK (2008) (Applications nos. 30562/04 and 30566/04), European Court of Human Rights. Most recently, it appears that the UK Government has dropped plans to retain DNA of people who were arrested but not convicted. See http://www.guardian.co.uk/politics/2009/oct/19/innocent-dna-database. Levitt (2007) provides a useful summary of the potential benefits of forensic databases weighed against the potential ethical and social costs.
The success to date in unravelling much of the genetic basis of pigmentation—a complex, polygenic trait—offers hope that the causative SNP’s of other highly heritable traits such as height and facial morphology will be achievable.

Progress in the field of human genetics has been rapid, and as knowledge of the relationships between genes, environment and behaviour improves, it is certain that these developments will impact significantly on the field of criminology in general (Walsh 2009) and forensics in particular (Budowle and van Daal 2008, Graham 2008). Technology has significantly impacted both on the field, allowing faster, cheaper and more accurate analysis of genetic material (Budowle and van Daal 2009), and it is likely that this process will accelerate. Further progress in the field, if realised, will result in a science of predicting the characteristics of an offender from crime scene evidence that would have an established and validated scientific basis, and would make traditional profiling essentially redundant.

CONCLUSION

The literature on profiling suggests strongly that the hopes and aspirations of practitioners and the hype of media and popular culture have far exceeded the reality of practice. In the words of one recent review (Snook et al. 2007: 448):

... the CP [criminal profiling] field relies on weak standards of proof and ... profilers do not decisively outperform other groups when predicting the characteristics of an unknown criminal ... Based on the results of the narrative review and meta-analytic reviews presented herein, profiling appears at this juncture to be an extraneous and redundant technique for use in criminal investigations. CP will persist as a pseudoscientific technique until such time as empirical and reproducible studies on the abilities of large groups of active profilers to predict, with more precision and greater magnitude, the characteristics of offenders.

Theoretically, the underlying concepts of profiling are undeveloped, and not supported by empirical validation. Methodologically, the clinical judgement model at the centre of the profiling practice, is inherently unreliable, a feature that it shares with a range of other forensic individuation techniques that are founded on expert judgement. In practice, profilers have sometimes lacked professional detachment and objectivity, and have given faulty advice in the spirit of advancing the cause of the investigation, without adequate caveats and qualifiers. Police officers have been overly credulous in the receipt of profiling opinion, and have sometimes subsequently given far too much weight to the

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48 Single Nucleotide Polymorphism, the most frequent type of DNA variation.
information contained in a profile, to the extent that investigations have been sidetracked and in some cases significant miscarriages of justice have occurred.

While there have been significant developments in the scientific understanding of a range of anti-social and criminal behaviour, in particular in the unravelling of gene-environment interactions, these seem to hold out little hope for the development of an underlying science that would inform profiling. On the other hand, advances in DNA technology are marginalising profiling through the provision of accurate direct matches of crime scene DNA to ever more inclusive data-bases. Techniques such as familial DNA analysis means that the existing databases can provide indirect information about a much larger proportion of the population than is contained in the database. Finally, recent advances in DNA technology have the potential to impinge directly on the domain of profiling by informing investigators of the ethno-geographic heritage of suspects. It is plausible that in future information about suspect’s coloration, height and facial morphology will be able to be generated from forensic DNA samples.

There are a few practical implications of this for police forces to consider. Police forces should be very wary of giving too much weight to a traditional profile produced by a police officer who has been trained in the ICIAF tradition. If such methods are employed, both the profiler and the detectives working on the case need to be informed about the limitations of the methodology and the inherent unreliability of the product.

There are good reasons, however, for a police force to develop some expertise in the broader field of investigative psychology. This discipline can make a research based contribution in a range of areas including interview strategies, victimology, target assessment and investigation strategies, including advice to undercover operatives. It is my view that staff undertaking these functions should not be police officers. In NSW, the field of investigative psychology is regulated by the Psychologists Act 2001, which makes it an offence for a person other than a registered psychologist to practice as such.

Section 7 of the Psychologists Act 2001 makes it an offence for a person who is not a registered psychologist to indicate that the person practices psychology or is qualified to practice psychology. A person is taken to have so indicated if the person uses:
Any name, initials, word, title, symbol or description that (having regard to the circumstances in which it is taken or used):
Indicates; or
Is capable of being understood to indicate; or
Is calculated to lead a person to infer that the person practices psychology or is qualified to practice psychology.  

49 NSW Psychologists Registration Board.
In effect, where a profiler wishes to undertake professional activities which explicitly involve psychological concepts, it is likely that in NSW such activities are in breach of the Psychologists Act, unless the profiler is a registered psychologist. Activities that run the risk of such a breach might include the preparation of a psychological profile, the conduct of an equivocal death analysis or psychological autopsy, or undertaking a risk assessment of a suspect. Tasks that have been traditionally associated with the ICIAF model of profiling, such as the analysis of offender behaviours, motivation, personality features, and the presence and implications of psychological disorders in suspects and victims, in NSW are activities that arguably fall under the provisions of the Psychologists Act and therefore cannot by law be undertaken by a person who is not a registered psychologist. While it would be possible to qualify a serving police officer as a psychologist for this purpose, for reasons explored in the section of profiling disasters, there is a strong case that such advice should come from a person who is a qualified and registered professional, with a degree of independence from the interest of the investigators.

To put it plainly, where a set of tasks are defined under legislation and part of a recognised professional domain of practice, they should be undertaken by an appropriately qualified and registered practitioner. It is not appropriate for police to practice as amateur psychologists, and consequently, the regulatory domain of professional psychology in the Australian context is a problem for the ICIAF model of profiler recruitment and accreditation.

The evolution of different approaches to profiling in the United States, Canada, the United Kingdom and Netherlands has reflected an accommodation with local conditions. Accordingly, it is necessary in Australia to develop an approach to investigative sciences that is consistent with law, science, local systems of accreditation, the organisation and resourcing of criminal investigation, and the professional practices of investigators.

A significant part of the practice of the FBI Criminal Investigative Analysts is the provision of advice and assistance to investigations being conducted at local, city or state level. Many small jurisdictions in the USA simply do not have the resources to conduct a long, complex or protracted investigation, and in some cases the training and expertise of detectives, and the level of specialist support from analysts and forensic specialists is limited. In such circumstances, an FBI Criminal Investigative Analyst brings a whole range of skills and experience necessary to bring together all of the threads of the investigation and provide advice and tactics that can assist with bringing the investigation to a conclusion.

The situation is different in NSW. Detectives in NSW are very well trained, have well resourced specialist squads, with support from analysts, and a world’s best practice forensic capacity. Criminal investigation in NSW has over the last 15 years been increasingly professionalised in terms of its training, practice and management. It would not appear to be as necessary to train detectives in NSW as Criminal Investigative Analysts, when so much of the knowledge and skills are available among specialist investigation squads, intelligence analysts and forensic specialists. In addition to high
level investigation methodology, what the ICIAF model has to offer that is unique is the insights into the offender behaviour and motivation that is encompassed in the range of profiling activities. These are precisely the activities that the first section of the report are problematic in both scientific and practical contexts, and which have difficulties locally in terms of the legislation governing the practice of psychology.

In short, the ICIAF model is one that has developed in the United States, and while revolutionary in its day, is now not really relevant to the practice of criminal investigation in the Australian context, even in its broader context. Profiling has arguably enjoyed tremendous success more as a matter of marketing and perception than reality. Developing local practice according to such a model runs the risk of implementing a model that is not well adapted to local conditions and requirements, and in particular does not resonate with the organisational operating culture. It is my view that the failure of the ICIAF model in Australia demonstrates that these difficulties are real and significant. In this regard, jurisdictions should carefully consider the UK model (see Rainbow 2008) when considering how to implement a system for the provision of independent expert psychological support for investigators, across a range of relevant practice areas.
REFERENCES


