

Preface

The Evolution of Crime Action Profiling

As a forensic psychologist, most topics involving the interaction of the criminal justice system with the science of psychology interest me. It was not until the start of the 1990s, however, that I first learned of a fascinating and purportedly new technique whereby police investigators could develop a description of an offender based not on any witness report, but on behaviors evidently displayed during the commission of a crime. What captured my attention most about this technique was the context in which it was applied. Often, work and research in the domain of forensic psychology considers issues in a reactive context. Examples include psychological evaluations of an individual for the purpose of an insanity defense or a person's potential for recidivism in the context of a parole hearing. Here, however, was something that could be used in a proactive context, while a criminal investigation was still very much afoot. The disciplinary knowledge of psychology could in this sense be used to compile a description of the likely offender to assist with an on-going investigation. This remarkable concept or investigative tool as police referred to it was simply referred to as psychological profiling. I quickly learned, however, that although the underlying concept surrounding this technique was the same, the title assigned to it varied markedly depending on differing practitioners and their disciplinary backgrounds, which was often reflected in the nomenclature adopted by these practitioners. The terms criminal profiling, offender profiling, criminal investigative analysis, and criminal personality profiling all seemed to be used interchangeably to describe the practice. With this new awareness (of what I will for the sake of simplicity refer to here as "profiling"), I set about collecting, reading, and learning as much as I could about the technique. Initially, I was thoroughly captivated by the material. The prospect of being able to deduce the identity of a criminal and thereby assist in the investigation of violent crime was of great interest to me and, I considered, of enormous practical benefit to law enforcement agencies throughout the world. However, after about 6 months of exploring the available literature doubts began to creep into my mind as I contemplated the research on the topic.

First, I started to perceive similarities between supposedly original independent studies and their respective data pools. It appeared to me that some articles did not actually report a study in a holistic manner as it had been undertaken. Instead, a study frequently appeared divided into smaller components. This subdivision seemed to enhance the number of publications and exposure gained from what appeared to me to be essentially a single study. Although subdivision *per se* is not wrong, it should, in my view be more of a rarity than a common practice and should be clearly acknowledged so that the context and origin of the data are clearly made known.

Also of significance to me was the originality of the samples gathered for the purpose of a study and the publications generated from these samples. Cognizant of the comparatively low volume of serial violent crimes that form the basis of the bulk of profiling research, I assumed the collection of samples would be difficult to obtain and therefore scarce in number. In contrast to this assumption I was surprised by the number of available studies emanating from what I expected to be a very limited data pool from any given country. There is an expression known as double-dipping that serves to describe an inelegant practice of repetition or recycling. The term arose from the distasteful practice of a person contaminating a shared food receptacle by re-dipping a piece of bread, for example, that had already been dipped and gnawed on into a fondue bowl shared by others. In a somewhat analogous capacity, I could not help but wonder about some original studies and whether the same data was simply being re-analyzed or double-dipped by different researchers who held some common affiliation with the source of the data. The net effect of these observations with respect to the published literature was the realization that the published material could easily create the impression that a substantial corpus of research existed on the topic of profiling when perhaps only a smaller amount of truly original material existed.

The second issue that came to my attention involved the content and application of some of the published literature. A large proportion seemed to focus more on describing and discussing profiling and its potential uses rather than systematically explaining how a criminal profile was or should be constructed. Granted, some original empirical studies have been undertaken that offer interesting offender typologies that appear valid and relevant to profiling. The systematic interpretation and application of this information, however, remained something of a mystery. This gap in the literature served to highlight, to my mind, the divide between the “art” dimension of profiling and the “science” of profiling. Even today, there exists debate about whether the practice of profiling is in reality an art or a science. Indeed, in one sense

profiling can be viewed as both. The scientific aspect of profiling it seems is well catered for in a number of studies that have produced a range of taxonomies for different types of behaviors and offenders. This literature, however, is often silent on how such categories should be systematically interpreted and applied to any given circumstance for the purpose of formulating a profile. In the absence of such exposition the art dimension to profiling has evolved.

A third issue of concern to me was determining what was the likely accuracy of profiling in correctly predicting the characteristics of an unknown offender. Despite this being a seemingly fundamental issue, I was surprised by the scarcity of what I would regard as robust evidence. At the time, the predominant source of material describing the accuracy of profiles and their utility were anecdotal accounts from profilers themselves. While the analogous use of clinical vignettes are common in the consideration of mental disorders and their treatment within the disciplines of psychiatry and psychology such vignettes exist alongside an equal if not greater number of carefully crafted studies within such disciplines that empirically and impartially seek to evaluate the effectiveness of such treatments. Despite the ever-growing popularity and apparent optimism surrounding the use of profiling that appears to characterize much of the literature, equivalent scientifically grounded trials of profiling were to my mind, remarkably conspicuous by their absence.

The defining moment for me, however, perhaps arrived when I was consulted about a high-profile serial murder case. The police investigators had, in respect of another serial murder case, consulted expert profilers from an internationally renowned law enforcement agency only a few years earlier. The procured profile did not seem to logically accord with Australia's population demographics. Consequently, on this investigation different tactics were employed and police consulted numerous sources (including myself) to see what assistance could be provided. With an artificial sense of confidence derived from my knowledge of the literature, I set about carefully examining and considering the circumstances of the case and the questions that were posed to me. From the outset, I found that the details surrounding the murders seldom comfortably or neatly matched the evident categories and patterns described in the published literature. For example, although one tantalizing similarity was clearly apparent between the case under consideration and the research literature, the matching features were derived from the research developed in the context of rapists, not serial murderers. Although behaviors at times were evident that matched one distinct offender category, matching behaviors inherent to another dichotomously opposite category were also simi-

larly evident. Before long, I found myself mixing the research literature with my own clinical knowledge wherever I perceived some relevance. I was duly thanked for my efforts, but despite this I couldn't help but wonder how useful my ideas had truly been or whether they genuinely offered anything more than what could have been deduced through common sense. It was these doubts about the research literature at the time, combined with my own experience in constructing a profile, that led me to contemplate the full extent of the deficit that existed between the reputation and the capabilities of profiling. It was from this time I realized that far more work and research was required into criminal profiling.

Today, with the luxury of hindsight, the development of profiling can be seen as akin to the field of personality theory. Within the disciplines of psychology and psychiatry, there exists an accepted consensus in the existence of a conceptual construct known as the mind. Although there is common agreement in the concept of the mind, there are numerous rival approaches or theories that attempt to explain the nature and operation of the mind. A few examples of these differing approaches or "personality theories" include the psychoanalytic, behaviorist, and biological theories. The work and research into profiling can be viewed in an analogous fashion. There appears to be a general consensus that profiling is a concept whereby crime behaviors can be interpreted for the purpose of making predictions concerning the probable offender's characteristics. Akin to the varying personality theories, differing approaches have evolved over time that propose how crime behaviors are interpreted or profiled. In drawing this analogy with respect to the development of profiling, it is important to appreciate what roughly constitutes or equates with an approach to the profiling of certain crimes. In this context an approach can be loosely conceived as a coherent body of work or research composed of a number of original studies that commonly share some distinctive theoretical or methodological basis concerning the profiling of a variety of crimes.*

Arguably, the first and oldest approach to profiling emerged when individual mental health professionals were consulted to assist in criminal investigations involving often bizarre and seemingly unsolvable crimes. Historical examples of such consultations span back many decades and include now infamous consultations such as Dr. Thomas Bond in 1888 in the investigation of the Whitechappel murders (also known as Jack the Ripper) and Dr. James

*It should be noted that although not meeting my adopted definition of an approach, scholars including Bruce Arrigo, Steven Egger, Eric Hickey, Jack Levin, and Louis Schlesinger (to name only a few) have each made valuable contributions to the topic of profiling and/or serial violent crime.

Brussel in the 1940–1950s investigation of the Mad Bomber of New York. Although admittedly lacking an original body of research on the specific topic of profiling, there is nonetheless some clear commonality among these individuals, which is perhaps founded in the disciplinary knowledge and training they share. Namely, their efforts in relating their knowledge of psychiatry/psychology/criminology and clinical experience to the profiling of a crime. This example of profiling has come to be known as Diagnostic Evaluation (DE) and in many respects it arguably still represents the most common and readily accessible approach to profiling violent crimes (1). These historical antecedents serve to dispel myths concerning the comparatively recent invention of profiling by any individual or law enforcement organization. They indicate that the concept of criminal profiling in predicting the probable characteristics of a perpetrator of a violent crime is neither new nor revolutionary.

Such DEs served to inspire the development of another approach to profiling now commonly referred to as Criminal Investigative Analysis (CIA). This approach comprises the collective works of the FBI's Behavioral Science Unit (2). Although the research underpinning CIA does not support the invention of profiling by the FBI, it does nonetheless represent the first cogent body of research to specifically and systematically consider the profiling of violent crimes. Additionally, the efforts of the FBI through CIA can be credited for popularizing the concept of profiling among law enforcement agencies throughout the world. This popularization in itself is a significant accomplishment that should not be underestimated or devalued as without these efforts it is debatable to what extent, if at all, the practice of profiling would have evolved beyond the classical circumstance of DE.

Perceived inadequacies with the various approaches to profiling provided the impetus for the development of other approaches. In this respect, the underlying ideology behind CIA was no exception. Although inspired by the DE efforts of clinicians such as Dr. Brussel (2), researchers in the FBI Behavioral Science Unit were dissatisfied with the clinical/treatment perspectives of DE. Accordingly, CIA set about developing a method of profiling that specifically catered to the needs of law enforcement personnel in the investigation of violent crime. In particular, CIA attempted to develop a pragmatic method for the profiling of crimes that would be readily accessible and comprehensible to police personnel. The pursuit of this objective led to research that considered the profiling of violent crimes as a technique informed by various investigative concepts or maxims. These maxims were derived from various offender typologies developed by the FBI's Behavioral Science Unit through their own original studies of incarcerated offenders. Possibly

the most renowned of these typologies being the organized–disorganized dichotomy with its underlying maxim of the interpretation of crimes by the level of behavioral sophistication exhibited at a crime scene.

Perceived dissatisfaction with the typologies and concomitant investigative maxims inherent to CIA in part led to the development of another approach—Investigative Psychology (IP). IP sought to approach the concept of profiling from a stronger methodological basis indicative of research practices common to the social sciences. Once again, a number of original studies were undertaken of various offender groups typically via the use of archival data sources such as closed police cases. Results from these studies were interpreted more in terms of ideographic themes that were argued to be indicative of the offenders who committed the examined crimes. Thus, the commission of a murder, for example, was argued to be interpretable dependent on the presence or absence of semi-dichotomous themes of whether there was an instrumental or expressive purpose inherent to the commission of the crime. Possibly the most distinctive ideological feature of the research conducted under the banner of IP was its conceptualization of profiling as a psychological subdiscipline seemingly distinct from mainstream forensic psychology. This disciplinary splinter appears manifest in the nomenclature adopted to describe the research undertaken and the availability of tertiary qualifications in the field of IP.

Another recent body of thought which can be viewed as an approach to profiling is that of Behavior Evidence Analysis (BEA). There are, however, some significant limitations in describing BEA as a distinct approach to profiling as it does not appear to be informed by a discrete substantive body of original empirical research. Instead, what BEA offers in some respects is a fusion of previous criminological literature on various forms of violent crime, the forensic sciences and philosophical concepts related to modes of reasoning, most notably, inductive vs deductive reasoning. BEA seems to hypothesize that a method of analysis is possible, whereby crimes may be interpreted for the purpose of profiling by adopting deductive reasoning processes as opposed to inductive ones. Given our current understanding of how the human mind functions and cognitively processes information in a heterogeneous fashion, some inherent difficulties exist with such a hypothesis (3).

Nonetheless, BEA is noteworthy for one reason in particular. The invention of BEA arose from perceived dissatisfaction, albeit perhaps mistakenly at times, with other profiling approaches which seemed preoccupied with the statistical generation of aggregated profiles. BEA identifies and warns of the very real dangers of criminal profiles that adopt a colloquial “one-size-fits-all”

approach in relying on conceptualizations of the typical offender instead of adequately considering the circumstances of each crime and the potential uniqueness of its perpetrator. Thus, BEA highlights the need for profiling methods to be, wherever possible, flexible in their capacity to account for various combinations of individual factors concerning a particular crime and advocates the generation of criminal profiles specifically based on such unique factors.

It is against this backdrop that I have written this book more than a decade and a half later. Much has transpired since I first learned of profiling and immersed myself in the literature on the topic. Indeed, I have conducted many of my own studies in the area. Akin to all of the other approaches to profiling the impetus for my own research efforts has been my dissatisfaction with the available literature and the methods advocated. The volume, scope, and methodology employed in the studies that I have undertaken over the years have developed to such an extent that I view them as forming a distinct approach to profiling in itself which I refer to as Crime Action Profiling (CAP).

CAP adopts the view that profiling essentially represents a psychological technique that has its foundations in the disciplinary knowledge of forensic psychology. As can be seen by the historical development of profiling from its DE origins, profiling was a task within the repertoire of functions traditionally performed by psychiatrists or psychologists who were consulted by police investigators to assist in bizarre and seemingly unsolvable crimes. Over time, the growth in the popularity of profiling led to its practice by a range of other professionals such as police officers, criminologists and social scientists. In this respect the ideology inherent to CAP deviates from that of both CIA and IP. That is, CAP adopts the view that profiling is simply a technique that originates from the discipline of forensic psychology.* As a consequence, this conception of profiling assumes knowledge of human behavior and psychology such as personality dynamics and human psychopathologies.† This differs from CIA, which posits profiling as an investigative technique more within the corpus of knowledge and domain of law enforcement, and IP, which postures

*In defining this conceptualization of profiling, it should be noted that although CAP views profiling as a technique within the disciplinary boundaries of forensic psychology, this conception relates to the corpus of scientific knowledge associated with forensic psychology. It is not meant to imply that the construction of profiles should be restricted to forensic psychologists *per se*, but rather, the body of scientific knowledge that comprises profiling should be viewed as traditionally within the topic domain of forensic psychology.

†In this regard, knowledge of human behavior and psychology is conceived as a distinct body of knowledge which, it is argued, is a closely related prerequisite to profiling. Akin to disciplinary knowledge of the forensic sciences the reader is assumed to possess this knowledge for the purpose of this book.

that profiling has evolved to such an extent that its conceptualization is worthy of forming a discrete psychological discipline unto itself.

How CAP conceives and characterizes profiling as a technique within the existing disciplinary boundaries of forensic psychology is important for another reason. In addition to the study of mental disease, the discipline of psychology also expends considerable effort on the study and development of practical skills related to the clinical practice or application of psychology. Examples of these include clinical interviewing techniques, assessment of clients and conventions for writing various forms of diagnostic reports. In an analogous manner the research strands of CAP have studied both the behavioral patterns inherent to violent crimes (akin to psychology's study of mental disease) as well as the structure, processes, accuracy and skills related to constructing profiles (akin to the clinical practice of psychology). This is a distinguishing feature of CAP as other approaches to profiling have predominantly focused solely on the study of offender typologies and have, for the most part, largely ignored such issues related to the practical concept of constructing a profile.

It is this ideological conception of profiling as a technique within the disciplinary domain of forensic psychology that also accounts for its nomenclature "Crime Action Profiling." The term CAP is used to help differentiate it from other tasks psychologists regularly perform. The discipline of psychology operates by applying a body of information concerning mental disorders to clients who present for a variety of reasons, the most frequent of which is psychological assessment. Within this context a discrete area of psychology known as psychometrics exists which often makes use of tools such as personality and psychological profiles. In the context of this book however, the term profiling does not refer to the evaluation of a patient, but instead the interpretation of an offender's actions that are evidenced in a crime scene and from which predictions about that offender's characteristics can be made. In this respect, the term Crime Action Profiling is used to describe and signify this process relating to the consideration of crime actions and the prediction, or profiling, of offender characteristics from those actions.

The studies canvassed throughout this book represent my own original, empirically based work on the topic of criminal profiling. Over the past decade and a half this work has been published in a range of scholarly peer-reviewed journals. Their publication in this format, however, has only served to provide a disjointed method of communicating their aggregated meaning to primarily only those who read academic journals. Consequently, in the pages of this book I have, for the first time, attempted to draw together in a systematic fashion the research I have undertaken to provide a comprehen-

sive compendium of the research endeavors that characterize the CAP approach to the profiling of violent crimes.

Additionally, in recognition of the application of profiling in criminal investigations and the need for this material to be comprehensible to a wider audience, I have attempted to explain the many concepts in a manner that does not require the reader to possess advanced qualifications in subjects such as statistics, psychiatry, or psychology. In this regard, I have endeavored to write this book in a manner that renders it, in some respects, accessible to the intelligent lay person as well as personnel engaged in the legal, law enforcement, and criminal justice fields.

In an effort to maximize the accessibility of the CAP research contained in this book I have adopted a deliberate structure. The initial four chapters are intended to explain the implications of the body of work I have undertaken which examines the skills, accuracy, components and processes surrounding the construction of a criminal profile. As previously mentioned systematic consideration of such issues have, in my view, been gravely neglected. In Chapter 5, the focus shifts to the CAP research and methods developed for the profiling of violent crimes. The objective of Chapter 5 is to define and identify the forms of violent crime that, in my view, are most applicable to profiling. Chapter 5 also examines the types of crimes for which CAP models have been generated and which are the subject of subsequent chapters.

Chapter 6 is perhaps the most pivotal in that I have for the first time attempted to articulate a generic procedure by which the various CAP models canvassed later in Chapters 7–9 may be utilized for the practical development of a criminal profile. The primary focus of Chapter 6 is to describe a systematic method for the interpretation and use of the CAP models. Thus, Chapter 6 aims to instruct the lay person, and in particular readers who lack an appreciation of advanced statistics and/or social science methodologies on how to use the various CAP models to profile a particular crime without necessarily needing to comprehend how each model was originally built.

The subsequent three chapters (i.e., Chapters 7–9) then canvass the respective CAP studies undertaken into crimes of serial rape, serial/sexual murder and serial arson and explain how each of the models were developed. It is crucial to appreciate that the statistical and methodological expositions contained in each of these chapters are provided for readers who are primarily interested in understanding the theoretical and methodological principles incumbent to the development of each of the CAP models. In this respect, a detailed understanding of this material is not essential for readers who wish

to use the models for the purpose of aiding them in the construction of a criminal profile.

The final two chapters of the book return to the objective of providing the reader with a greater understanding of the CAP research and its pragmatic application. Specifically, Chapter 10 outlines procedures for the analysis of offense spatial locations, while Chapter 11 discusses procedurally how to develop a written criminal profile.

The work of CAP that is discussed throughout this book is cognizant of the purpose of profiling in assisting criminal investigations and is therefore predominantly focused on crimes that, in my view, will most directly and frequently benefit from the input of a criminal profile. CAP firmly advocates the scientific development of profiling and incorporates social science principles into its methods. The CAP principles recognize the dangers in being heavily reliant on standardized templates of offenders and instead advocates for malleable mechanisms in accounting for the individual circumstances of a given crime wherever possible.

I have embarked on many objectives in writing this book, but if the reader considers my combined efforts to have increased his or her understanding of criminal profiling and how it works, I will be content.

Richard N. Kocsis, PhD

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Chapter 2

Smoke and Mirrors

*The Illusions of Accuracy in Criminal Profiles**

Summary

The technique of criminal profiling has proliferated over recent decades, despite a remarkable lack of empirically rigorous evidence concerning its accuracy. Notwithstanding the absence of evidence, the very circumstance of the continued use of profiles by police investigators is often regarded as proof of their accuracy. This phenomenon is essentially informed by an “operational utilitarian argument.” Namely, anecdotal evaluations of criminal profiles sponsor their continued use. This chapter is concerned with a series of empirical studies that systematically test the reliability of such anecdotal evaluations concerning the perceived accuracy of criminal profiles. The results of these studies demonstrate the unreliability of anecdotal evaluations and highlight the weakness of such an argument.

Key Words: Criminal profiles; anecdotal evaluations; accuracy.

INTRODUCTION

Despite the renown and apparent popularity of criminal profiling, particularly in law enforcement circles, it comes as something of a surprise that empirically robust evidence to support the merits of the technique has, until

*The following three chapters of this book will discuss a number of studies evaluating various aspects of criminal profiles and the practice of constructing a criminal profile. Incumbent to these studies are the use of statistical techniques to test and identify patterns and differences in the data. Any reader unfamiliar with such techniques may refer to Appendix A of this book, in which the elementary principles underpinning such methods are explained to assist in better understanding the subsequent chapters.

From: *Criminal Profiling: Principles and Practice*
By: R. N. Kocsis © Humana Press Inc., Totowa, NJ

quite recently, been remarkably scarce (1). The studies discussed in Chapter 3 have endeavored to progress our scientific understanding of the comparative accuracy and requisite skills associated with the accurate construction of a criminal profile. Before considering the research findings canvassed in those chapters, however, it is important to question why, in the absence of scientifically rigorous material (the norm for virtually all other professional disciplines), the technique of criminal profiling has continued to prosper.

In one study by the author (2), it was suggested that any combination of three possible factors might be operating to create this circumstance. The first factor involves the predominantly favorable, albeit sometimes fanciful, media glamorization that the technique enjoys (3–5). On an intuitive level, fictional portrayals of criminal profiling may serve to fuel the impression of the merit and accuracy of the practice in assisting investigators. The second factor relates to the general environment in which criminal profiles are frequently used: criminal investigations, conducted by law enforcement agencies that typically feature comparatively insular authoritarian cultures (6–14). Within such an environment, the technique of criminal profiling may not be exposed to the same degree of independent critical scrutiny that is characteristic of other scientifically constituted disciplines that feature considerable transparency and evaluation of internally adopted practices (15,16). The third and arguably most pertinent factor in the context of this chapter relates to a circumstantial argument at times put forward by expert profilers when seeking to justify their practices (17,18). This argument is described by the author (2) as the operational utilitarian argument, and is somewhat circular in what it posits. That is, if criminal profiles were not regarded as being useful, investigators such as police would simply not continue to use them. Accordingly, because police officers continue to use the services of expert profilers this circumstance serves as evidence attesting to the presumed merit and accuracy of the criminal profiles. In essence, the tenet underpinning the operational utilitarian argument is simply a variation of the old English proverb “the proof is in the pudding.” That is, the accuracy of criminal profiles can be inferred by the circumstance of their continued use. Positive results, it seems, must be occurring because police officers continue to use criminal profiles to aid their investigations, and therefore the profiles must be accurate.

Despite the intuitive logic of such an argument, it has previously escaped empirical testing. Additionally, such an argument does not represent a direct and objective measure of the accuracy of a criminal profile. Instead, it is at best an indirect and inferred measure based on the perceived accuracy of the criminal profiles by users of them. That is, police officers perceive criminal profiles to be useful in the course of their investigations and consequently

continue to use them. This circumstance is then taken as equating with evidence of the accuracy of a criminal profile.

One central premise underpinning the operational utilitarian argument is that the perceptions of police officers regarding the accuracy of a criminal profile are reliable. However, should these anecdotal evaluations be found to be unreliable in some respect, such as, for example, being subject to some extraneous influence or even bias, then the validity of the operational utilitarian argument would be seriously undermined. This question surrounding the reliability of anecdotal evaluations of criminal profiles is extremely pertinent when one considers the extensive history of psychological research that has consistently highlighted the unreliability of human perceptions in a wide variety of contexts (19–21). Consequently, a series of studies were undertaken to investigate the reliability of such anecdotal evaluations. These studies sought to critically examine the validity of the operational utilitarian argument that has been relied on as evidence in support of the accuracy of criminal profiles for many decades.

*EVALUATIONS OF CRIMINAL PROFILES BY POLICE OFFICERS**

As previously explained, the underlying premise of the operational utilitarian argument is its reliance on anecdotal evaluations of criminal profiles. Accordingly, to test the validity of this argument one needs to examine the reliability of police officers' perceptions of a criminal profile. Consequently, a study was devised whereby a sample of police officers were presented with a criminal profile and asked to evaluate it on a quantifiable scale that could then be subjected to critical analysis (22).

The first step in conducting this study involved obtaining 59 serving police officers who participated as the surveyed individuals for the study. The design of this study essentially involved providing the police officers with a survey that asked four questions concerning their evaluations of a criminal profile that accompanied the survey form. To explore the reliability of their evaluations and thus the possibility of some form of bias in their perceptions, some experimental variations (which are discussed next) were also incorporated into the study.

*The descriptions of the three studies canvassed throughout this chapter represent abridged summaries of the studies undertaken. Details inherent to each of these studies have been omitted to facilitate their easy comprehension in this book. Readers interested in this particular topic should consult the original manuscripts describing the studies in full (22,23,27).

All of the survey forms started with the same cover page describing in general terms what criminal profiling is and how it is used in criminal investigations. Following this cover page, the survey forms provided some details concerning an actual murder. The description of this murder only provided a moderate amount of information and its purpose was to simply provide some background information regarding the nature of the survey for the police officers. A criminal profile followed this description of the murder. The survey form indicated that this profile was written by an individual who had been consulted by police officers to assist with their investigation into the aforementioned murder.

At this juncture, however, two important features were incorporated into the survey forms. The first feature related to the label that was provided to describe the author of the criminal profile. Although the survey forms indicated that the profile had been provided to assist the investigation, the identity of the author was deliberately altered among the different versions of the survey form. In half of the survey forms the criminal profile was labeled as written by a "professional profiler," whereas in the other half the identical profile was labeled as written by "someone the investigator consulted," thus providing a less descriptive label concerning the author. All of the survey forms requested that the criminal profile be carefully examined and four questions answered relating to its perceived merit. Aside from this variation concerning the identity of the author of the criminal profile, all of the survey forms contained the identical introductory material and asked the same four questions.

All four questions on the survey forms were measured on a 7-point scale in which 1 represented a low value rating, 4 an average rating, and 7 a very high rating. The first three questions all related to aspects of the perceived usefulness of the criminal profile. The first question asked for an evaluation of the perceived coherence of the criminal profile with respect to how well the ideas appeared to be presented. The second question inquired about the degree of specificity of the criminal profile with respect to how specific or vague the supplied information appeared. The third question inquired about the individuation of a suspect from the profile by asking for some estimation of how likely participants believed that the information contained in the profile would potentially help in narrowing a list of suspects. Following these three questions, a final separate section of the survey form was presented to the police officers. This section asked participants to rate the accuracy of the criminal profile. However, in this particular section of the survey an actual description of the apprehended murderer was also provided in the survey form. Consequently, when the police officers were making their evaluation of the accuracy of the profile they were undertaking a side-by-side comparison be-

tween the predictions constituting the criminal profile and the characteristics of the apprehended offender.

As previously mentioned, this study incorporated two special features. The first related to varying the listed identity of the author of the criminal profile. The second feature, however, was more aligned to strengthening the design of the study. One potential criticism of the study, as described thus far, might be that the obtained results could simply be an artifact of the particular criminal profile that was the subject of the experiment. That is, different results might be obtained by the use of a different criminal profile. To cater for this contingency, three different versions of the survey form that each contained one of three different criminal profiles was used. Each of the three versions of the survey consisted of one of two alternative conditions—one that listed the author of the criminal profile as the professional profiler and the other with the nondescript label of someone the investigator consulted. Consequently, this study featured six different versions of the survey form, one of which was randomly administered and completed by each of the 59 police officers. Their responses on the survey forms were scored together for each of the six respective versions and statistically analyzed for any differences in the mean scores for each different version of the survey.

As previously indicated, the purpose of this study was to test the reliability of police officers' anecdotal evaluations of a criminal profile and in the context of the design of this study it aimed to investigate whether the perceived merits of a criminal profile were affected by the labeled identity of the author.

The results of the analysis summarized in Table 2.1 indicate that when a criminal profile was simply labeled as authored by a professional profiler, it was consistently perceived to be more accurate than when the identical material was presented under the nondescript (i.e., anonymous) author label. Although the author label was found to influence the police officers' evaluation of the accuracy of a criminal profile, it did not, however, appear to affect their perceptions concerning its utility. Namely, the three measures related to coherence, specificity, or individuation.

Consequently, the findings of this study highlight the unreliability of anecdotal evaluations because some form of bias was found to be operating in the evaluation of the accuracy of a criminal profile by the sampled police officers.

BELIEVING IS SEEING?

Although the previous study demonstrated that perceptions regarding the accuracy of a criminal profile appear to be influenced by the identity of its

Table 2.1
Police Perceptions of Criminal Profiles as a Function
of the Labeled Identity of the Author Assigned to the Criminal Profile

Profile measures	Author labels		
	Anonymous (<i>n</i> = 33)	Profiler (<i>n</i> = 26)	
Coherence	No significant difference	No significant difference	
Specificity	No significant difference	No significant difference	
Individuation	No significant difference	No significant difference	
Accuracy	3.21	3.98	Significant difference F(1, 53) = 4.84, <i>p</i> < 0.05

author, the study did not explore in any substantive capacity why this occurred. Accordingly, a second study was undertaken in an effort to understand the factors that may account for the observed bias in the previously surveyed police officers (23).

Two theories were proposed by way of possible explanation. One theory related to the possibility of some intrinsic feature inherent to the police officers that may have accounted for their bias. For many decades, legal and criminological scholars have observed the strong collegiate sense of loyalty often present among members of policing organizations (6–14). With these cultural loyalties in mind, perhaps the surveyed police officers identified the author title of professional profiler as someone affiliated with their organizational culture and thus were reluctant to assign an unfavorable rating to the work of a perceived colleague. The police officers may have, for example, objectively assessed the features of a criminal profile associated with its coherence, specificity, or individuation. However, the accuracy of the criminal profile may have been considered something directly reflective of a colleague's abilities. Consequently, this feature may have been judged more favorably when labeled as authored by a perceived colleague; thus the bias in evaluating the accuracy of the criminal profile.

The other theory offered to account for the bias relates to the confidence or belief that the sampled police officers may have held about criminal profiling. A number of studies in the social sciences have explored a phenomenon referred to as the Barnum effect, which accounts for the proclivities people demonstrate when interpreting ambiguous statements (24). Researchers exploring the operation of the Barnum effect have observed that ambiguous material is often interpreted positively when there is some favorable link to the subject. For example, a study by Snyder and Newburg (25) found that people were more willing to accept ambiguous but positive descriptions about

themselves than they were ambiguous but negative descriptions. Other research concerning the Barnum effect involved a study by Alison, Smith, and Morgan (26) that demonstrated that police officers had difficulty in discerning the amounts of valid information contained in a genuine, as opposed to fictitious, criminal profile. In view of such studies, perhaps the police officer's belief in profiling was encouraged when it was observed that the profile was authored by a professional profiler and thus evaluated it more favorably.

The objective of the second study was to investigate the plausibility of these two theories in accounting for the bias demonstrated by police officers in the previous study. Assuming that the bias was related to some intrinsic feature, such as the organizational culture of police, this bias then would presumably not be present in people external to policing. An initial test of this theory would simply involve repeating the previous study but with a sample of individuals who were not associated with policing. The second theory, however, operates on the existence of some conceptual relationship between a person's level of belief and their perceptions of a profile. If there were some basis to this theory, then variations in the levels of belief different people hold should be observable in their corresponding evaluation of a criminal profile.

Consequently, the design of this second study involved replicating the procedures used in the previous study with some additional measures. As previously stated, the theory concerning the cultural loyalty of police officers would involve a replication of the previous study but with individuals not subject to such cultural influences. Accordingly, the core components of the previous survey form were again administered, but this time to a sample of 353 university freshmen who were not associated with any police organization.

Testing the belief theory, however, required further adjustment to the previously administered survey. Namely, the inclusion of a measure that attempts to gauge a person's reported degree of belief in criminal profiling, which could be concurrently compared with their evaluation of the accuracy of a criminal profile. Akin to the scales described in the previous study, another five questions were created that asked a respondent to rate their belief in whether a criminal profile could effectively predict certain characteristics. For example, one question asked, "Do you believe profiles can accurately predict the gender of an unknown offender? Please rate your confidence on a scale from 1 to 7, where 1 = *No, probably incorrect* and 7 = *Yes, probably correct*." By tallying the ratings of these five questions, a quantitative score could be obtained that reflected a respondent's degree of belief in criminal profiling.

As previously mentioned, the belief theory presupposes the existence of some conceptual relationship between the level of belief a person possesses and the perceptions of an individual regarding a criminal profile. If this con-

cept were valid, then variations in the level of a person's belief would presumably be observable in the evaluations made by them concerning a criminal profile. To test this idea, three different cover pages were developed for each of the survey forms. One of the cover pages described criminal profiling in purely favorable, positive terms. The purpose of this cover page was to convey a sense of confidence in criminal profiling and thus encourage the person's level of belief. A second version of the cover page described criminal profiling in highly unfavorable, negative terms. The purpose of this cover page was to promote disbelief and skepticism in criminal profiling. Finally, the third cover page was created to serve as a neutral or control condition. This version of the cover page simply sought to provide an equivalent reading exercise to the other two cover pages and contained information totally unrelated to criminal profiling. This acted as a conceptual benchmark between the two polarities of positive and negative beliefs in criminal profiling.

The survey forms for this study were thus compiled to have three separate belief conditions. One belief condition deliberately attempted to bolster belief in profiling (i.e., positive), another served as a control condition (i.e., neutral), and the third sought to undermine an individual's level of belief in profiling (i.e., negative). Attached to each of these three cover pages were the five questions developed to measure an individual's reported level of belief. The survey form instructed the reader to answer these five questions immediately after reading the cover page. Once an individual had finished responding to the five questions concerning their belief in profiling the remainder of the survey form was akin to the one used in the first study (22) with one exception.

In the previous study, the accuracy of the criminal profile was evaluated by a side-by-side comparison with the details of the offender revealed to the participants at the very end of the survey on a separate form. In the present study, an extra measure was incorporated in an effort to assess the perceived accuracy of the criminal profile without the benefit of the description of the offender. This was accomplished by simply adding another question that asked the participant to evaluate the accuracy of the criminal profile immediately after the three questions that asked about the utility of the profile (i.e., coherence, specificity, and individuation). Then, as described in the previous study (22), the question relating to accuracy was again asked, but in a totally separate section of the survey form where a description of the offender was also provided. Thus, the question that requested an evaluation without the benefit of a description of the offender simulated the circumstance of an on-going investigation in which the identity of the offender is unknown, whereas the side-by-side comparison simulated an evaluation subsequent to the apprehension of the offender.

Table 2.2
Relationships Between Levels
of Reported Belief and Profile Evaluations

Profile measures	Correlation value	Significance (<i>p</i>)	
Coherence	0.32	<0.001	Significant incremental relationship
Specificity	0.13	0.013	Significant incremental relationship
Individuation	0.30	<0.001	Significant incremental relationship
Estimated accuracy	0.47	<0.001	Significant incremental relationship
Compared accuracy	0.16	0.002	Significant incremental relationship

Sample size ($N = 353$). Significance level (i.e., $\alpha = 0.05$).

Significant positive relationships found to exist between an individual's level of belief and his or her rating on all of the profile evaluation measures.

Consequently, the survey instrument in this second study was modified to reflect three different versions based on the differing belief condition (i.e., positive, negative, and neutral). Each of these three belief conditions contained six separate subconditions (akin to the first study) reflective of the three different criminal profiles with alternating author titles. Accordingly, in this second study, 18 different versions of the survey form (i.e., 3×6) were created. One of these 18 possible versions of the survey form was then randomly given to each of the 353 university freshmen (i.e., students).

Once again, the responses to these surveys were tallied for each of the respective versions and subjected to statistical analysis to investigate whether any differences or patterns could be discerned from the derived data (Table 2.2).

The results of this analysis were revealing in what they indicated about the proposed theories. First, the students did not demonstrate any significant differences in their evaluations based on the author label of the criminal profiles. This finding differs from the previous study (22) in which the police officers consistently perceived a criminal profile to be more accurate when labeled as having been written by a professional profiler. Consequently, this result lends some tentative support to the contention that the bias observed in the previous study may indeed be related to some intrinsic feature of the previously sampled police officers.

Equally revealing, however, were the results concerning the relationship between an individual's reported level of belief in criminal profiling and their evaluations of a criminal profile. As summarized in Table 2.2, signifi-

cant incremental relationships (i.e., statistical correlations) were found to exist between the reported level of belief an individual held and their evaluations of a criminal profile on all of the measures incorporated in this study. Thus, the more an individual believed in criminal profiling, the more favorably they evaluated a criminal profile, be it in the coherence, individuation, specificity, or accuracy stakes. This finding suggests that the famous adage “seeing is believing” appears to operate in reverse with respect to criminal profiles. That is, simply believing in criminal profiling is quite likely to result in seeing a criminal profile more favorably. Perhaps the most alarming aspect of this phenomenon is that one of the strongest manifestations of this relationship occurs when evaluating the accuracy of a criminal profile (i.e., the estimated accuracy of a profile).

BELIEFS AND THE CONTENT OF CRIMINAL PROFILES

Although the second study provided some evidence for the existence of a relationship between an individual’s level of belief in criminal profiling and the perceived merits of a profile, the study offered little insight into what components of information contained in a criminal profile might contribute to this phenomenon. Consequently, a third study was undertaken to specifically investigate this issue as well as to test the reliability of the previous findings.

Once again, the overall design of this third study closely followed that of its predecessor (23). Virtually all components of the survey form previously described for the second study were reproduced. Eighteen different versions of the survey form were used, comprised of the three belief conditions (i.e., cover pages with information describing profiling in either a positive, negative, or neutral context followed by the questions to rate their belief in criminal profiling). Each of the three belief conditions contained six different subversions of the survey form using one of the three different criminal profiles with the author label being alternated (i.e., between either professional profiler or someone the investigator consulted) on each of the three profiles. Once again, another sample of 353 university freshmen were recruited to participate in this study.*

The only change in design to this third study was the replacement of the three questions that asked participants to evaluate the criminal profile in terms of its perceived individuation, specificity, and coherence. In place of these

*It should be noted that by pure coincidence the final number of people who completed the survey form in this third study was identical to that of the previous study (i.e., 353). Thus, a total of 706 people were surveyed in conducting these two separate studies.

questions were 39 very short questions that asked the respondent to indicate whether the profile provided some description of a nominated characteristic of the likely offender.* A few examples of these questions included, “Does the criminal profile describe the offender’s likely build?” (Y/N) or “Does the criminal profile describe any prior relationship between the victim and the offender?” (Y/N).

Consequently, these questions measured the type and amount of information perceived to be in a criminal profile. To maximize the interpretability of the data derived from these 39 questions, three categories were developed indicative of the type of information they broadly represented. Thus, 8 of the questions related to whether the criminal profile described some type of physical feature of the likely offender and dealt with physical descriptors of the offender, such as age and gender. Another 16 of the questions related to whether the profile described some aspect of the offender’s background history and other historical aspects, such as the offender’s level of education or vocational history. The remaining 15 questions asked whether the profile described any specific crime behaviors and referred to information pertaining to the likely actions and events surrounding the commission of the offense.

Akin to the procedures of the previous study, one of the 18 different versions of the survey form was randomly administered to the sampled university freshmen. The scores on each of the survey forms were tallied together in each of the respective conditions and then subjected to various forms of statistical analyses to discern whether any differences or patterns emerged from the data (Table 2.3).

Similar to the findings of the second study, no differences were found among the freshmen regarding the perceived merit of a criminal profile based on the labeled identity of the author. This result provides further evidence to suggest that the bias observed in the first study may indeed be related to some intrinsic feature of the previously sampled police officers.

As summarized in Table 2.3, an incremental relationship was again found between the level of belief in criminal profiling and the perceptions of the accuracy of a criminal profile. However, the results of this third study also indicated that an incremental relationship existed between an individual’s level of belief and the amount of information related to background history and crime behaviors perceived to be contained in a criminal profile. This relationship, however, was not found to exist with respect to perceptions of the physical

*These 39 questions were structured in a dichotomous format so that the answer to each question was either a “yes” or “no.” The 39 questions reflecting information typically contained in a criminal profile originated from another study that is discussed in Chapter 4 (28).

Table 2.3
Relationships Between Levels of Reported "Belief "
and Perceptions of Content and Accuracy in Criminal Profiles

Profile measures	Correlation value	Significance (<i>p</i>)	
Background history (16 questions)	0.13	0.014	Significant incremental relationship
Crime behaviors (15 questions)	0.19	<0.001	Significant incremental relationship
Physical features (8 questions)	0.038	0.483	No relationship
Estimated accuracy	0.48	<0.001	Significant incremental relationship
Compared accuracy	0.313	<0.001	Significant incremental relationship

Sample size ($N = 353$). Significance level (i.e., $\alpha = 0.05$).

characteristics of the offender. Consequently, this third study demonstrates that in addition to the existence of an incremental relationship between belief and perceived accuracy, the higher the level of belief, the greater the amount of information that will be perceived to be present in a criminal profile pertaining to background history and crime behaviors.

CONCLUSION

The findings of the three studies discussed in this chapter highlight the unreliability of anecdotal evaluations of criminal profiles and thus clearly challenge the validity of the operational utilitarian argument. In contrast to the premise of the argument, these studies suggest that police officers may erroneously perceive greater accuracy in a criminal profile.

Perhaps even more intriguing are the indications of a relationship existing between the level of belief an individual possesses in criminal profiling and their corresponding evaluation of a criminal profile. As outlined at the start of this chapter, the practice of criminal profiling has enjoyed predominantly favorable popular culture depictions over the past decades (3–5). Therefore, it needs to be questioned to what extent, such depictions may have subconsciously influenced the levels of belief that police officers and others in the community may have about profiling and the extent to which such impressions influence their evaluations concerning the accuracy of a criminal profile. It could be that the operational utilitarian argument may, in fact, be little more than the manifestation of a vicious illusionary cycle. That is, popular culture representations and anecdotal testimonials may artificially elevate

people's belief in the capabilities of profiling. These elevated beliefs may in turn lead to misconceptions concerning the accuracy and merit of criminal profiles. Such misconceptions may then in turn sponsor the continued use of profiling and perhaps lead to even more favorable media coverage and testimonials: thus the cycle continues.

No doubt the findings of these studies are likely to prove confronting to expert profilers who seek to justify their practices with any sort of operational utilitarian argument. Unfortunately, anecdotal examples and testimonials as justification for the validity of criminal profiles may amount to little more than smoke and mirrors. These studies illustrate how imperative it is that the merits of criminal profiles be assessed through independent scientifically controlled studies.

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