CRIMINAL PROFILING

PREDICT AND SCREEN THE CHARACTERISTICS OF UNSUBS

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FOREWORD

There has been a general fascination with criminal profiling since it became all the hype in the past two decades. The popularity of television shows such as Law & Order: Criminal Intent, and Profiler in the 1990s, Criminal Minds from 2005, and the hugely popular 1991 cult film The Silence of the Lambs propelled behavioral analysis into the limelight. Although criminal profiling is inarguably a useful technique to infer likely characteristics of an unknown subject of a criminal investigation, or UNSUB, as he or she is now colloquially known, science is battling to catch up.

While Dr. Hannibal Lecter has become a household name and armchair enthusiasts expect profilers to point to perpetrators within days, if not hours, these expectations are mostly unrealistic. Criminal profiling is a valuable tool, a cog in the larger wheel of the overall criminal investigation. Behavioral scientists are working tirelessly to establish the protocols and procedures necessary to provide information in an offender profile that is useful to predict the offender type and behavior. Thereby it is possible to limit the suspect pool and guide the investigative team. Such tips may include where and how the perpetrator may hunt for his victims, what he may do next, and how he may react to various tactics of the investigative team.

The science and practice of criminal profiling, also referred to as offender profiling, or behavioral analysis,
has developed along two main lines, namely the FBI model and the Investigative Psychology model. The principles and methods of both models are explored and illustrated at the hand of multiple case studies that include the “Mad Bomber”, Ted Bundy, Aileen Wuornos, and the “Vampire of Sacramento.” Another case study illustrates the use and value of geographical profiling methods in a serial murder investigation. The book also takes a look at the early pioneers of behavioral science and pre-FBI criminal profiling applications in cases such as Jack the Ripper and the Son of Sam. Psychosocial and biological theories of criminal behavior are discussed as these form the basis of the understanding of behavioral analysis. Finally, despite the positive outlook of criminal profiling as a useful tool in apprehending offenders, experts have also leveled serious criticism at it. Many of these have merit. After all, criminal profiling has also contributed to significant failures, such as the 2002 Beltway Sniper murders and the 1996 Atlanta Centennial Park Olympics bombing.

However, criminal profiling techniques have been successful too. The case of the 1986 Railway Killers is one example covered in the book. Despite the fact that the view offered in the media of criminal profiling is often distorted, sensationalized, and inaccurate, I trust that this book offers a balanced account of the potential value of profiling if applied correctly and thoughtfully. Therefore, it was my aim to provide a factually correct and objective introduction to the basics of criminal profiling in this book. It is an amazing and fascinating
subject that has great potential if approached correctly. I sincerely hope that you find this guide to criminal profiling informative and engaging as I have intended it to be.

Lastly, I want to use the opportunity to invite you to leave comments, contact me online, or join my growing community of crime and psychology aficionados. All the relevant details are in the “About the Author” section.
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CHAPTER 1. AN INTRODUCTION TO CRIMINOLOGICAL STUDY

The objectives of Chapter 1 are the following:

1. To define the influences, scope, and objectives of criminology
2. To highlight the main criminological approaches and theories
3. To explain how theories interpret the existence of free will in criminal behavior
4. To describe the different typologies of crime
5. To explain the interfaces between forensic psychology, criminal profiling, and criminology

DEFINITION OF CRIMINOLOGY

Before we delve into a discussion of what criminology is (and is not), it is important to understand that criminology is not so much a discipline in itself, but a sphere of study with many influences and intellectual traditions from philosophy, psychology, political studies, sociology, anthropology, legal studies, biology, and—most recently—also neuroscience. The John Jay College of Criminal Justice in New York describes criminology as “the study of crimes, criminals, crime victims, theories explaining illegal and/or deviant behavior, the social
reaction to crime, the effectiveness of anti-crime policies and the broader political terrain of social control.” With subcategories such as victimology (studying victims), penology (reviewing prisons), psychological analysis (profiling of crime scenes and perpetrators), etc., criminology is equally useful to understand criminal behavior on the streets, at workplaces, prisons, police stations and courts, and in conflict zones. Essentially, it is about understanding human behavior that is in violation of the laws of the particular society and time. These are two very important concepts to consider. Criminal behavior is always viewed and analyzed in an environmental (relating to political, legal, and societal norms at a geographical location) and temporal (relating to time) context, with the objective to prevent or correct aberrant behavior. Criminologists typically collect and analyze sets of data that may be qualitative (i.e. information based in quantities or numbers that can be measured such as crime statistics), quantitative (i.e. information that deals with apparent qualities or subjective properties), or, in some cases, mixed methods that combine the two types. Examples of some new issues that require critical criminological inputs are critical might be the global war on terror, environmental destruction by multinationals, the apparent growing international proliferation of a zero tolerance, the social autopsy of natural disasters and armed conflicts, youth gangs and the social and moral decline that it implies, the impact of immigration and human mobility, the rise of the prison-industrial (and military-industrial) complex,
and the prevalence of white-collar crime and corporate corruption.

The origins and development of criminology are discussed in greater depth in Chapter 3, and although the modern world with its principal features of economy, politics, and society are very different from pre-modern times, there remain explanations of crime, criminal behavior, and a view of the interventions that are required, which share similarities. David Garland (2002, pp. 22-23) explained:

Stories of how the offender fell in with bad company, became lax in his habits and was sorely tried by temptation, was sickly, or tainted by bad blood, or neglected by unloving parents, became too fond of drink or too idle to work, lost her reputation and found it hard to get employment, was driven by despair or poverty or simply driven to crime by avarice and lust – these seem to provide the well-worn templates from which our modern theories of crime are struck, even if we insist upon a more neutral language in which to tell the tale, and think that a story’s plausibility should be borne out by evidence as well as intuition.

Even then, there was a general understanding that crime is a universal temptation to which we are all susceptible, but more analytical and evidence-based techniques were lacking to explain why some of us act criminally and
some not, sometimes with very similar backgrounds and circumstances.

**IMPORTANT THEORIES IN CRIMINOLOGY**

Many different theories of criminology have evolved over the years as researchers, practitioners, academia, and policymakers seek the best solutions to reduce and prevent crimes. Depending on the type and level of crime, these have developed into many different approaches and explanations in the form of individual and combinations of theories. In their most basic form, these attempt to understand the causes and offending behavior of criminals, in terms of their personal inclination to engage in criminal behavior, how much control they are able to exercise over their behavior and choices, and their motivations and intentions. Theories of crime deal with both personal characteristics of the offender, victim, and context (e.g. situation, location, circumstances) to understand and predict criminal behavior. In psychological terms, a known set of parameters—with a known offender central to his or her behavior—is analyzed with the goal of generalizing the conclusions with sufficient reliability and validity to other offenders in similar circumstances.

Before the most important different theories of criminology are briefly discussed, the concepts of “reliability” and “validity” are very important in social science research as it is related to the usefulness of the application of conclusions in practical applications. Later
on, a lot of discussion will take place around the reliability and validity of the criminal profiling methods and techniques, which is continuously coming under intense scrutiny and is cause for much controversy. In research, the term reliability means “repeatability” or “consistency”. A measure is considered reliable if it would give us the same result over and over again (assuming that what we are measuring isn’t changing). As such, reliability is the degree to which a test consistently measures whatever it measures.

Validity is related and used in conjunction with reliability to determine the value of a test/method/technique in field and other applications. In simple terms, in social science research, validity usually refers to the degree to which inferences can legitimately/credibly be made from the observations in a study and how well they generalize to a cause-effect theory. In other words, does your data measure what it is supposed to measure? Is the test valid for the decision that you want to make; or how valid is the interpretation that you propose for the test? The first identifiable tradition of explaining crime and criminal behavior in modern society is the rational actor model that emerged with increasing criticisms of religious interpretations of the natural world.

**The Rational Actor Model of Crime and Criminal Behavior**

The rational actor model is based on the idea that people have free will and make a choice to commit a crime in the same way that they would choose to take part in any
other behavior that has two major sets of influences, namely perspectives of social contract and utilitarianism. Essentially it is based on two assumptions of human nature: (1) Individuals have freedom to make behavioral choices that transcend their situations, personal characteristics, and environmental factors such as poverty and ideological beliefs, and (2) that they are motivated to maximize utility (e.g. happiness, food, resources) by weighing the costs and benefits of their future actions before deciding on behavior.

According to Burke (2009, p. 22), the “essence of social contract theories is the notion that legitimate government is only possible with the voluntary agreement of free human beings who are able to exercise free will”. Compliance can be forced by the fear of punishment (deterrence model), but only if people are willing to freely conform or subject to institutions with the implied protection of essential rights such as life, liberty, and property. The perspective also embraced the concept of a general will, i.e. in addition to individual self-interest, there is a collective interest in the wellbeing of the community. It also rests on the presumption that humans developed their application of reason—an appreciation of the meaning and consequences of actions—by their ability and willingness to regulate and control behavior. Thus, in the social contract view, human beings are seen as rational actors as they freely choose their behavior in consideration of interpersonal and civic duties.
The next development of the development of the rational actor model was the philosophical tradition of utilitarianism, which seeks to consider the rightness of acts, policies, decisions and choices by looking at the happiness of all those affected by them in that they provided reasoning for a person’s behavior. It is also accepted that will, as a psychological quality, is generally free. The distinction between actions that produce happiness and harm is the basis for morality. Therefore, the concept of the “greater good” is put front and center in the utilitarian model of criminal behavior. It seems that the overall ideology was to determine the rightness of an act or policy by calculating the net balance of pleasure/wellbeing over harm/pain. However, the theory has serious limitations in distinguishing between qualities of pleasures and harms and incorporating individual differences in experience and desire.

The “deterrence theory” also assumes the criminal offender as a rational actor, as he or she can be deterred from engaging in criminal behavior by punishment or the threat thereof. Deterrence is part of a variety of sentencing and other criminal justice goals that also include retribution, incapacitation, and rehabilitation. It hold that the severity and certainty of punishment for a criminal action will act to prevent the rational actor from going forward by weighing the consequences of their actions and concluding that the risks of punishment are too severe. Burke (2009) highlighted the five basic premises of the rational actor model of crime and criminal behavior as follows (p. 50):
1. Most criminals are normal-reasoning people. The mode of reasoning used by all adults – with perhaps the exception of the mentally ill, is rational.

2. Rationality is a mode of thinking in which individuals are able to accurately distinguish means and ends. What they want and the ways that are available to them for obtaining those ends. For example: ends – possessing a certain amount of money for a certain amount of work; and means – paid employment, buying a lottery ticket, stealing it.

3. For each of the different means available to them, rational actors are also able to calculate the likely costs (things they do not want to happen) and benefits (how many or how much of their ends they can achieve) of following a course of action.

4. If benefits outweigh costs, do it. If costs outweigh benefits, don’t do it.

5. So, according to rational choice theory, it is not necessary to consider prior causes, antecedents and structures. All that matters are the rational judgments and calculations facing a given person, with their particular set of ends and preferences, in a given situation.

Newer, integrated models tend to accept that decisions are not taken in isolation of personal and other
characteristics and influences, and that they will act according to a limited or bounded form of rationality where they do not have all the facts available, and rarely take the time to weigh consequences carefully. However, essentially, according to the rational actor view, most criminal acts involve some reasoning and free will.

**The Predestined Actor Model of Crime and Criminal Behavior**

The predestined actor view of criminal behavior assumes that the offender has no or limited control in conforming his actions to legal norms and expectations. This perspective has an important impact on legal decision-making as it is a common principle in Anglo-American and many other—including Islamic Sharia—law systems make some kind of concession for incapacity or diminished responsibility if a person cannot control his actions or is unable to understand right from wrong. This principle is in part what the predestined actor model involve, i.e. there is no or limited rational choice, often due to inherited or predisposed deficiencies and the offender is not held accountable or only partially accountable. These theories are becoming increasingly prominent as research in areas of the effects of genes and brain structure on behavior provides increasing evidence of a possible link. It is also attracting controversy as these factors are often claimed to be an excuse to escape accountability and punishment for one’s criminal actions.
Nevertheless, the predestined actor models of criminology have a long-standing scientific tradition that rejects the rational actor emphasis on free will, which was replaced with a doctrine of determinism. Therefore, it is argued that some internal and/or external factors exist in a person that compels him or her to engage in criminal behavior with little or no control, thus, in some way, it is the destiny of the person to become a criminal. According to Burke (2009), there are three basic formulations to this model, namely biological positivism, psychological positivism, and sociological positivism. All three share the same basic assumption to explain the essence of humanity, mostly through evolution and science. According to evolutionary biology and psychology, humans are subject to the laws of nature and behavior is instinctive rather than by free will in order to survive. Modern studies increasingly prove the impact that genetics have on behavior, although it is not in isolation, but through an interplay of biological and socio-environmental factors. For example: A person is born with genetic that he/she inherited and predisposes them to certain abilities, temperament, etc. From birth, positive and negative experiences impact brain development, which may further contribute to traits that are commonly linked to criminality. As such modern integrated theories, which will be discussed in a later section, acknowledge that both nature and nurture play roles in the pathway to criminal behavior.

Psychological positivism was developed from theories by Sigmund Freud, who proposed that criminal behavior
is either the result of mental illness, weak conscience, or child attachment problems that can be linked to dysfunctional personality dimensions such as introversion/extroversion, neuroticism, and psychoticism. Personality traits that are conducive to a criminal lifestyle are likely to persist until an intervention re-establishes social inhibitions.

Social positivism also rejected the rational actor theories’ reliance on free will and sought to identify societal causes that generate a propensity for criminal behavior. Hence, the spatial distribution of crimes and offenders are important as it represents the influence that a community may have on a member’s behavior. Such societal factors that could predispose individuals to crime include low levels of education and poverty. The theory of social positivism includes concepts such as anomie, conformity, ritualism, rebellion, and subcultures, which are unfortunately outside the limits of the current scope.

Matza (1964) critiqued the predestined actor model based on three basic arguments that he proposes to be invalid:

1. There is a focus on the criminal and their behavior, but largely ignores the role of the criminal justice system.

2. The model is overly deterministic in rejecting the notion of free will by failing to recognize that individuals are mostly capable of making
rational choices, but these may be limited by structural constraints.

3. The model considers criminals to be fundamentally different from non-criminals. Therefore, as with other narrow-view criminal theories, the predestined actor theory may have some validity, but it’s perspectives are best viewed in a more holistic way.

**The Victimized Actor Model of Crime and Criminal Behavior**

The third main criminological theory, the victimized actor model, challenges the predestined and rational actor models in that it incorporates the role of the criminal justice system by proposing that the behavior of marginalized (e.g. poor and disadvantaged) individuals and groups are disproportionately targeted and criminalized. As such, the victimized-actor model proposes that criminal behavior evolves from experiences of abusive and unjust treatment in the course of a person’s interactions with people and institutions in society and their cultural context, starting from early childhood. There are also further issues raised and fragmentation caused by varying interpretations of policies, laws, legislations, and constitutional rights, some of which are (or have been) criminalized, including homosexuality, racial and cultural profiling, and public resistance. So-called labelling theories are also included in victimized-actor models by recognizing that laws and policies are shaped by certain people and interest
groups, which tend to stigmatize others who are different. The consequences of these labelling practice could dramatize and criminalize certain behaviors inappropriately, which further isolates and internalizes the affected individual, who may eventually redefine his self-identity and behavior with perceived negative opinions and expectations of others.

**Integrated Theories of Crime and Criminal Behavior**

Nowadays, it is mostly acknowledged that crimes and criminal behavior do not constitute a single factor, set of factors, or pathway, but is rather a confluence of many different aspects that shape and develop over time. As a result, explanations of crime and criminal behavior have deliberately started to integrate the different approaches to provide a more valid and differentiating model than those offered by singular theories. Perhaps the best known integrated theories are those of Delbert Elliot and Terence Thornberry. Elliot’s integrative theory applies strain, social control, and learning theories as explanation of delinquency by considering strain due to the gap between aspirations and achievements, attachment problems in the family, and exposure to and identification with deviant peers and negative role models (Elliott, Ageton, & Canter, 1979). Thornberry’s interactional theory focused more on social aspects of structure as it relate to social control and learning, and the effect on reciprocal interpersonal relationships (Thornberry, 1987; Jang, 2010). Although each of the discrete theoretical models of crime and criminal behavior has something to offer, integrating these ideas
produce more complete perspectives of crime (Krohn & Eassey, 2014).

**FORENSIC PSYCHOLOGY, CRIMINAL PROFILING, AND CRIMINOLOGY**

At this time, early in the discussion on crime and criminal behavior, it is appropriate to explain the fields of study and practice of forensic psychology and criminal profiling as it interfaces with criminology. Forensic psychology is an area of expertise that has been officially recognized and accredited in the U.S. in 2001, after which countries such as Britain and Australia followed. A brief definition of forensic psychology provided by the American Board of Forensic Psychology is “the application of the science and profession of psychology to questions and issues relating to law and the legal system.” Practitioners conduct evaluations and present their findings in criminal and civil court cases, prisons and criminal justice settings, law enforcement, and research institutions. In general, forensic psychology applies psychological principles and knowledge in legal and criminal justice settings to inform, support, guide, and improve legal decision-making, which include decisions in criminal investigations, criminal defense and prosecutorial matters, risk assessment and management of forensic populations such as prisons, common law such as parental fitness and child custody disputes, operations, recruitment, and evaluations in the military, and related policy matters.
Perhaps criminal profiling is an area of practice that is most widely associated with forensic psychology because of the popularity of TV series and movies such as Criminal Minds and Silence of the Lambs. However, despite their apparent popular acclaim, only very few forensic psychologists are officially employed as criminal profilers, and then mostly in specialist units of law enforcement agencies such as the FBI. Criminal profiling—also referred to as offender profiling, behavioral profiling, or investigative psychology—is a subdivision of forensic psychology that strongly relies on the application of psychological principles in criminal investigations to assist investigative teams in the field (some experts are also engaged in and attached to research institutions to continue refining criminological theories and procedures). The main objectives of criminal profiling, which will be discussed in more depth later, are to provide law enforcement with a social and psychological evaluation (profile) of the likely offender; to provide law enforcement with a risk assessment and predict future behavior; and to give suggestions and strategies for the interviewing and prosecutorial process. In summary, criminal profiling is a subarea of forensic psychology as it pertains specifically to criminal investigations, and utilizes psychological and criminological principles and knowledge to achieve positive outcomes.

**Crime Typologies**
It is true that not all crimes are equal in that the same or similar causes, motivations, and psychology/personality features are involved. Therefore, it is practical and sensible to provide similar types of crimes into different classifications. Siegel (2010) suggested that the most common high-level groupings are interpersonal or violent crimes, political crimes and terrorism, property crime, enterprise crime (e.g. white collar and organized crime), public order crime (e.g. non-violent sex crime and substance abuse), and cyber-crime. For the purpose of introduction, only brief descriptions are provided of each class.

- **Violent crime**: Most violent crimes are between a perpetrator(s) and victim(s) who are related or know each other and became involved in a confrontation or argument. Multiple murders involving strangers (e.g. serial and mass murder) are relatively rare— involving just around 2.5% of homicide victims in the U.S.— but often has a psychological component that is of particular interest to criminologist, forensic psychologists, and especially criminal profilers. Behaviors include homicide, aggravated assault, and forcible rape.

- **Political crime**: This type of crime is committed by state and non-state groups and institutions with the objective of achieving a political goal that is based on a distinctive belief system, ideology, or abstract ideal, such
as communism, capitalism, fascism, Islam, fundamentalism, and so forth. Some political crimes (e.g. genocide, war crimes, and human rights violations) are recognized by international laws such as International Humanitarian Law and International Law of Armed Conflict.

- **Property crime**: Occasional property criminals account for most of crimes of shoplifting, vandalism, vehicle theft, burglary, and arson. These destructive acts do not necessarily have a functional purpose (e.g. vindictive or material gain), but is also of interest to forensic psychologists and criminal profilers as there may be an intrinsic psychological motivation, and property crime commonly precede more harmful behavior.

- **Enterprise crime**: The two types are occupational crime (white collar crime), which are individual violations that take place for self-benefit during the course of a legitimate occupation, and organizational crime, or crimes committed by business or officials on behalf (sanctioned by) the employer. Then there is the organized crime category, which is defined as “any criminal activity involving two or more individuals, specialized or non-specialized, encompassing some form of social structure, with some form of leadership, utilizing certain modes of operation, in which
the ultimate purpose of the organization is found in the enterprises of the particular group” (Albini, 1971, p. 37)), usually to seek illegal profits and power.

- **Public order crime**: These criminal behaviors include prostitution and other non-violent sexual offenses, drug abuse, truancy, gambling offenses, disorderly conduct, traffic offenses, and vagrancy, which are typically viewed as “victimless crimes”. These form the majority of criminal offenses—more than 81% of all annual arrests in the U.S.—and consume most law enforcement resources. It is of interest to criminologists and policy-makers as the “broken windows” theory, which hold that effective management of these less serious crimes will prevent escalation to more serious crime.

- **Cyber-crime**: The category encompasses all crimes that are committed with the use of a computer and includes possession and distribution of child pornography, security fraud, counterfeiting, internet fraud, piracy, identity theft, and intellectual property violations. It is of concern as the potential harm of such activities is underreported and underestimated, and can cause serious losses and destruction.
Separating the factors that are involved in the commission of each crime type enables theorists and practitioners to focus on common characteristics, thereby aiming to improve the accuracy and validity of explanations and predictions. However, there are evidence that most criminals appear to be versatile, i.e. they engage in a variety of criminal behaviors, apparently without much preference (DeLisi, Beaver, Wright, Vaughn, & Trulson, 2011).

CONCLUSIONS AND IMPLICATIONS

The intention of this chapter is to provide a very brief introduction to criminological theories and crime typologies, with an idea of where forensic psychology and criminal profiling fit into the picture. The main theories differ in the attribution that free will (or the lack thereof) is given to engagement in criminal behavior, and also on different types of causes that may underlie each behavior. As will be later explained, the motive and rationalization of the offender, as well as their relationship with and/or choice of victim, is very important in understanding and profiling an offender. Offenders tend to rationalize their actions in different ways:

- Denial of responsibility (I didn’t mean it)
- Denial of injury (I didn’t really harm him)
- Denial of the victim (he deserved it)
- Condemnation of the condemners (they always pick on us)
• Appeals to higher loyalties (you’ve got to help your “own”)

This rationalization process provides an important insight into the mind and motivation of a criminal. Furthermore, the behavioral choices available to the individual are restricted by their life-chances, such as their education, training and skills, place of upbringing, membership of ethnic group, gender and differential access to material resources, which are also influenced by their psychological predisposition, e.g. do they naturally and habitually tend to be angry, depressed, callous, self-centered, or paranoid? These tendencies will link strongly to the behaviors that they feel comfortable and satisfying to engage in.

Concluding with words from Kauppinen (2014, p. 1) that illustrate that criminal behavior is both intentional and expressive: “According to legal expressivism, neither crime nor punishment consists merely in intentionally imposing some kind of harm on another. Crime and punishment also have an expressive aspect. They are what they are in part because they enact attitudes toward others—in the case of crime, some kind of disrespect, at least, and in the case of punishment, society’s condemnation or reprobation.” It is the intentional aspects—especially those seated in psychological drives—that are of interest to the criminal profiler.

CHAPTER ONE KEY CONCEPTS
1. Criminology is the study of criminal behavior and its underlying roots and causes.

2. The main theories of criminal behavior are divided on the existence of free will.

3. Integrated theories of crime acknowledge that nature and nurture play interactive roles.

4. Criminal profiling is a subarea of forensic psychology that evaluates an unknown offender to assist the criminal investigation.

5. The main typologies of crime are violent, political, property, enterprise, public order, and cyber-crimes.

6. Although multi-victim crimes are rare, criminal profiling is useful as there is usually a psychological component and behavioral patterns involved.

REFERENCES


CHAPTER 2. A SHORT INTRODUCTION TO CRIMINAL PROFILING

The objectives of Chapter 2 are the following:

1. To explain the objective and value of criminal profiling.

2. To outline the types of crimes for which criminal profiling is valuable.

3. To describe the five main steps involved in generating a criminal profile.

4. To explain selected important terminology in criminal profiling.

5. To present a notable example of criminal profiling in action.

OBJECTIVE OF CRIMINAL PROFILING

In the investigation of a serious crime, the first step is the study of clues (e.g. witness interviews, forensic analyses), the second is the study of the crime itself (e.g. crime scene and behavioral analyses), and the third is criminal profiling, which is the study of the abnormal psyche of the criminal based on conclusions made from existing knowledge of criminal behavior and crime scene observations. Historically, criminal profiling was simply professional advice about criminal behavior given to
police investigators by individual psychologists or psychiatrists. Their interpretations about criminal behavior were the result of their knowledge of the human personality and various psychological disorders. A criminal profile attempts to identify some of the most important personality and behavioral characteristics of an unknown offender based on an analysis of the various locations that a crime, or series of crimes committed by the same offender(s) took place. It is important to understand that criminal profiling is an investigative technique that stands alongside other, perhaps more conventional law enforcement methods, including interviewing, lineups, door-to-door canvassing, surveillance, forensic science, crime photography, etc. The criminal profiler, especially in high-profile or complex cases, forms part of a multi-disciplinary investigative team that consists of detectives, forensic scientists, uniform officers, medical examiner or coroner, crime scene technicians, fingerprint experts, district attorney or public prosecutor, medical personnel, and agent from other agencies that may have a stake (e.g. Interpol, the DEA, ATF, and FBI in the U.S., and the various special police forces in the U.K. and other countries). Therefore, in short, criminal (or offender) profiling refers to the compilation of the characteristics of a probable offender based on crime scene information.

Criminal profiling is a practice that forms part of the larger and recently recognized specialty area of investigative psychology. In the broader sense investigative psychology is concerned with tools and
methods that are applied in the context of a criminal investigation and criminal justice process to assist with the apprehension and conviction of an offender. Psychological and behavioral theories are developed and utilized in the field to achieve these goals. Therefore, as a broader concept, investigative psychology relies on a variety of techniques, including criminal and geographical profiling, linkage analysis, behavioral evidence analysis, terrorist and hostage negotiations, eyewitness reliability, expert testimony, interview techniques, and syndrome evidence to gather, analyze, and prove criminal case evidence.

Criminal profiling is the ability and activity to apply psychological principles and tools to concur an offender’s behavioral and character traits. The approach is potentially useful to guide criminal investigation strategies and limit the field of suspects. Criminal profiling is considered most valuable in serial crimes as it favors the analysis of behavioral patterns and repeated signature behavior. Rituals and signatures are defined as distinctive, repetitive, and pervasive (durable) behaviors at a crime scene that are driven by an offender’s deep-seated fantasies (e.g. body posing, markings, trophy-taking, torture). Another important term in profiling lingo, modus operandi (MO), represents the methods and other functional components that an offender applies to commit a crime successfully (e.g. tools used, time of day, location, selection and approach of victim, techniques of restraint). Unlike MO, signature behavior is not required to complete the offense, and is therefore
meaningful in terms of an offender’s emotional and psychological needs rather than an instrumental utility.

Recently, large interconnected networks, databases, and computational capabilities are increasingly employed to detect patterns and relevant information across crime scenes, even across state and country borders. Examples are the Violent Criminals Apprehension Program (ViCAP, U.S.), Combined DNA Index System (CODIS, U.S.) with more than 10 million entries as of 2013, and the United Kingdom National DNA Database (NDNAD) with more than 6 million entries as of 2012. However, as profiling relies deeply on critical thinking and reasoning processes, interpretation of incomplete data, and induction and deduction of subjective understandings, it is often considered a soft science that is prone to bias, observer effects, and generalization, all of which can negatively impact validity of conclusions.

As such, criminal profiling involves the analysis of behavioral evidence at crime scenes in order to describe the likely characteristic of an unknown offender and narrow a suspect pool. The objective is to improve the focus of a criminal investigation and allow investigators to deploy resources in reduced areas to quicken turnaround time and achieve higher arrest rates. Criminal profiling accordingly works on the principle that each and every criminal—regardless of the level or severity of their crime—will work to a certain set of values. These values are considered as distinctive as one’s own handwritten signature and once identified can be used to help law enforcement make a positive
identification. The products of criminal profiling are also applied to assist the court in determining whether or not there is sufficient behavioral evidence to suggest a common scheme or plan in order to address forensic issues, such as whether similar crimes may be tried together or whether other crimes may be brought in as evidence.

**TYPES OF CRIME AND BEHAVIOR SUITABLE FOR CRIMINAL PROFILING**

Techniques of criminal profiling are mainly concerned with the premises that (1) offender behavior has an inherent consistency, (2) offender behavior is distinctive, and (3) there is a direct relationship between offender characteristics and behavior. Therefore, profiling is primarily concerned with the recognition and identification of patterns and habits of behavior in an individual offender and between offenders committing similar crimes. It is a specialized area of expertise with a limited number of recognized and/or accredited practitioners, albeit numbers and expertise are rapidly growing due to research, educational, and accreditation oversight efforts. However, this still limits the use of criminal profiling to only the most serious criminal investigations, typically those involving serial cases of murder, multiple murders, or sexual assault although it has been used in cases of arson, bombing, espionage, stalking, extortion, kidnapping, terrorism, and product tampering. It is especially criminal behavior that is unique and atypical and has a psychological driver that
suits criminal profiling methods. Their observable behavior at the crime scene (e.g. modus operandi, signature) could provide valuable clues to their personal lives and characteristics (e.g. background and childhood, marital and relationship status, age, gender, race, physical appearance and build, temperament, intelligence, organization, social skills, psychopathology, fantasies, fears and avoidance situations, sexual preferences, criminal history, religious beliefs, and employment).

Profiles constructed by the FBI profilers, most private profilers, clinical psychologists, criminologists, and the police routinely draw inferences about, for example, serial murderers and their behaviors based solely on work experience, gut feelings, and the motivation of the offender. This form of deductive profiling is where the profiler assumes one or more facts as self-evident about a crime or offender and then, following work experience and hunches, arrives at other facts commonly called conclusions. As we will see in a later chapter, there is also an inductive profiling process that is more evidence-based and grounded in scientific theory. This approach was spearheaded by Prof. David Canter from the University of Huddersfield in England. But, more about the differences between the various approaches in criminal profiling at a later stage!

**Main Steps in Generating a Criminal Profile**
The conventional method of criminal profiling that continues to be widely used in the U.S. according to the FBI model, applies a relatively straightforward deductive reasoning process or, informally, top-down logic, which starts from one or more premises to reach a logical conclusion, often by way of sequential steps (see Figure 2.1). General rules are applied to narrow the field of consideration until a conclusion is reached reductively. The approach are also similar to actuarial principles of profiling, which is another topic for later discussion.

Figure 2.1: Deductive Profiling Process

Traditionally, profilers make conclusions about the personality of an offender based on his or her behavior by looking at four basic phases:

1. Antecedent: What fantasy or plan, or both, did the murderer have in place before the act? What
triggered the murderer to act some days and not others?

2. Method and manner: What type of victim or victims did the murderer select? What was the method and manner of murder: shooting, stabbing, strangulation, or something else?

3. Body disposal: Did the murder and body disposal take place all at one scene, or multiple scenes? Was the body posed? Was any other aspect of the crime scene staged?

4. Post-offense behavior: Is the murderer trying to inject himself into the investigation by reacting to media reports or contacting investigators?

A more detailed view of the traditional criminal profiling process are given in Figures 2.2 and 2.3, starting with observations and information from the crime scene from various disciplines that are (or should be) represented in a criminal investigative team. Thereafter assessments are made, the profile drafted, and continuously tested against new evidence as the investigation progresses until a suspect is apprehended.
1. Profiling inputs

Crime scene
- Physical evidence
- Pattern of evidence
- Body positions
- Weapons

Victimology
- Background
- Habits
- Family structure
- Last seen
- Age
- Occupation

Forensic information
- Cause of death
- Wounds
- Pre-/post-mortem
- Sexual acts
- Autopsy report
- Laboratory reports

Preliminary police report
- Background information
- Police observation
- Time of crime
- Who reported crime
- Neighborhood
  - Socioeconomic status
  - Crime rate

Photos
- Aerial
- Crime scene
- Victim

Figure 2.2: Criminal Profile Information Input
Figure 2.3: *Criminal Profile Generation Process* (Adapted from Douglas, Ressler, Burgess, & Hartman, 1986, p. 13)
When the criminal profiling process is done haphazardly and not based on systematic expert reasoning and knowledge that are backed by research, bias and subjective opinion is introduced. Therefore, a profiler should follow a thorough and methodological process that account for the unpredictability and complexity of human behavior.

SELECTED TERMINOLOGY USED IN CRIMINAL PROFILING

The offender profile is based on analyzing the crime scene to make inferences about observable behavior, which most typically hinges on three concepts: modus operandi (MO), signature, and victimology. These three aspects represent the essence of the offender’s personality and motivation(s).

Modus Operandi

Modus operandi—or MO—literally translates to “method of operation” in Latin. In the context of a criminal investigation, the term describes an offender’s habits and methods of committing a criminal act, preventing its detection, and/or facilitating escape. Bartol and Bartol (2013) warns against over-reliance on an MO in the analysis of a crime and generation of a criminal profile as it may not be a persistent behavior(s), but relatively adaptable to situation and need.

It [MO] is a behavioral pattern that the offender learns as he or she gains experience in
committing the offense. However, the MO is subject to change. Repeat offenders may change their MO in an attempt to develop a method that is most effective. For example, serial burglars find new tools or different methods of overriding an alarm system, and serial killers often become more daring and risky in their selection of victims or in the clues they leave for police. Consequently, although the MO cannot be ignored, investigators may make a serious error if they place too much significance on this aspect when linking crimes. (p. 35).

However, the habits and techniques of an offender, especially an experience one, may become stereotypes and routine, and therefore have probative value for the criminal analyst. It is part of the premise that that an offender leaves behind his trade mark in the form of the crime he commits and the methods he employs. This corresponds with the Locard principle, which states that that every time you make contact with another person, place, or thing, it results in an exchange of physical materials and other observable conditions. Therefore, at a crime scene, an offender leaves evidence, but also takes something away from the scene with him. As a specific manner in which a crime was committed and the crime scene treated, MO often develops and stabilizes with time and experience as it is essentially a learned behavior, but it can also seem to become less competent, maybe due to a deteriorating mental state, effects of increased substance use, or unforeseen circumstances.
Either way, an MO is functional in nature, and includes, but are not limited to:

- Number of offenders
- Amount of planning before a crime
- Route taken to offense location
- Pre-surveillance of crime scene(s) or victim
- Use of a weapon during a crime
- Nature and extent of precautionary acts
- Location of offense
- Methods of committing the crime
- Techniques and instruments to used
- Items taken from the crime scene(s) for profit, or to prevent identification
- Method of escape/route taken from the offence location
- The criminal motive
- Method of transportation to and from the crime scene(s)

Nevertheless, unfortunately, many investigators err by placing too much significance on the MO when analyzing or linking crimes as it is essentially a dynamic and flexible behavior that is adapted with time and circumstances. It by far not as an innate, intrinsic, and psychologically significant as signature behavior.

**Signature**

Signature aspects, behaviors, and characteristics evident in a crime scene are idiosyncratic to specific offenders, and unlike the MO, does not change often as it fulfills and
is an expression of a deep psychological need. It is behavior that goes beyond what is necessary to successfully execute the crime, and is repetitive, ritualistic behavior of a serial offender. Bartol and Bartol (2013) explains further: The signature may involve certain items that are left behind or removed from the scene, or other symbolic patterns such as writings or drawings on the wall. Some burglars tailor their styles (or their signature) to convey messages to victims and investigators, hoping to induce some strong emotional reactions from them, such as fear or anger. The burglar may leave a frightening or threatening note or “violate” some personal item, such as intimate clothing, a photograph, or a diary. A signature may also involve posing (or positioning of the body), any aspect of crime scene staging that is not functional (i.e. to destroy/manipulate evidence), mutilation, or any other symbolic gesture that is significant to the offender.

Signature behavior relates to the cognitive and emotional processes of the offender, which by definition, is strongly linked to his/her psychological makeup. It is so inherently linked to an offender’s psychological motivation, needs, experience, and the fantasies that underlie these, that it is sufficiently consistent to provide valuable clues about the offender. Although the signature aspect remains a constant and enduring part of an offender that is linked to his psychopathology, certain parts may evolve, possibly as the offender’s fantasies subtly changes with feedback from the experiences of his actual acts, causing the elements of the original ritual to
become fully developed. In addition, the signature may not be present or observable at every crime scene because of unexpected contingencies, such as interruptions or an unexpected victim response, decomposition of the body, or disturbance of the crime scene.

**Victimology**

According to the Merriam-Webster dictionary, victimology is the “study of the ways in which the behavior of crime victims may have led to or contributed to their victimization”. In most serial crimes victims shared a common characteristic that links them (e.g. occupation, age, appearance, race). These similarities have the possibility of providing investigators with a clue about the likely perpetrator of the crimes, and provide the profiler with vital information not only about the victim, but about the offenders themselves. Often, it gives the profiler an idea of why they were chosen, which gives an insight to how the offender thinks, what his fantasies, desires, etc. may be. Information of how the offender thinks will enable profilers to predict his future behavior and characteristics, possibly leading to a successful arrest.

Closely related to victimology are the concepts of method of approach, method of attack, and risk assessment. If we know details of the victims’ personalities and styles, it may become clear how, why, and where the offender approached and overpowered them. Often the risk that an offender was willing to take to acquire a particular
victim also provides valuable clues as to his underlying motivations, urges, and fixations. In a sense the victim is also profiled. In a perfect world, the following information should be available for the profilers on the victim before they begin to work the case: physical traits, marital status, personal lifestyle, occupation, education, medical history, criminal justice system history, last known activities (including a timeline of events), personal diaries (if known and available), map of travel prior to offense, drug and alcohol history, friends and enemies, family background, employment history, etc.

Answers to the following questions could provide some ideas about the offender’s motive and MO, and possibly his signature. From this, other examinations can be made about the offender’s likely background including his knowledge of forensic and police procedures, his possible occupation, his physical characteristics and social skills, among others.

- Why was this particular person targeted?
- How were the person targeted, or was the person a victim of opportunity?
- What are the chances of the person becoming a victim at random (and therefore opportunistic)?
- What risk did the offender take to commit the crime?
- How was the victim approached, restrained and/or attacked?
Victimology is a very useful line of inquiry, especially with crime series as victims (and all other aspects of the crime) can be compared to derive at signature behavior and other useful conclusions about the offender. To conclude, the first victim in a crime series such as serial murder may also have special significance as the comfort zone of an inexperienced serial offender is still relatively small, and the victim may have been a part of his daily life or in close proximity.

Case Study: Modus Operandi and Signature

The following scenarios are fictitious accounts published by John E. Douglas and Corinne Munn (1992) of the Investigative Support Unit at the FBI. They are used to show the difference between an MO and a signature aspect.

A rapist enters a residence and takes a woman and her husband captive. The offender orders the husband to lie face down on the floor and then places a cup and saucer on his back. He tells the husband, “If I hear the cup move or hit the floor, your wife dies.” The offender then takes the wife into the next room and rapes her.

In another situation, a rapist enters the house, orders the woman to phone her husband, and tells her to use some ploy to get him to come home. Once the husband arrives, the rapist ties him to a chair and forces him to watch the assault on his wife.

The rapist who used the cup and saucer developed an effective modus operandi to control the husband.
However, the other rapist went beyond just committing the rape. He satisfied his fantasies fully by not only raping the wife but also by humiliating and dominating the husband. His personal needs compelled him to perform this signature aspect of the crime.

In Michigan, a bank robber makes the bank tellers undress during the robbery. In Texas, another bank robber also forces the tellers to undress, but he also makes them pose in sexually provocative positions as he takes photographs. Do both of these crimes demonstrate a signature aspect?

The Michigan robber used a very effective means to increase his escape time, i.e., causing the tellers to dress before they called the police. When interviewed, they offered vague, meager descriptions because their embarrassment prevented them from having eye contact with the robber. This offender developed a very clever MO.

However, the Texas robber went beyond the required action to commit his crime successfully. He felt compelled to enact the ritual of requiring the tellers to pose so that he could snap photographs. He left his signature on the crime. The act of robbing the bank itself did not gratify his psychosexual needs.

This case study has illustrated that a profiler should take all evidence into account in a coherent way and not look at it in an unsystematic or piecemeal manner. The crime
should form a coherent and plausible narrative or story into which all pieces eventually fit.

CASE STUDY: GEORGE METESKY, THE “MAD BOMBER”

The case study is adapted from online materials by the Rockyview Schools based in Alberta, Canada. One of the earliest cases involving this method of forensic investigative analysis involved George Metesky, otherwise known as the Mad Bomber, who terrorized New York City through a carefully orchestrated bombing campaign that lasted from 1940 until 1956.

Metesky had worked for United Electric & Power Company in the early 1930s, but he was fired when he sued for compensation after being injured in a work-related accident. Metesky believed that he had developed tuberculosis because of his accident, but his court case was eventually dismissed. His indignation and outrage led to many angry letters to Consolidated Edison, a large conglomerate that had been created by the merger of several small utility companies including United Electric & Power Company in the early 1930s. Metesky’s anger and mental instability led him to place his first bomb at the Consolidated Edison building in downtown New York City in November 1940. Designed as a small pipe bomb, the device never detonated. Police found a crumpled note wrapped around it, bearing the words “CON EDISON CROOKS, THIS IS FOR YOU.” The subsequent police investigation failed to disclose any
further evidence, and the matter was considered closed until nearly a year later when a similar device was found nearby.

Investigators from the New York Police Department (NYPD) recognized the construction as similar to the previous device. They were suspicious that this bomb had simply been abandoned in the street. Surprisingly, police received an anonymous letter from Metesky in December 1941 indicating that his patriotic feelings stemming from U.S. entry into World War II meant he would refrain from setting any more bombs until after the war. Metesky’s identity remained hidden from police during this time, and he continued to send threatening letters to Con Edison, the electricity giant in the New York area.

Then, in March 1950, police discovered an unexploded bomb in Grand Central Station. They believed it to have been constructed by the individual who had planted bombs of similar construction almost 10 years earlier. Police and public grew increasingly concerned when two bombs detonated inside the New York Public Library and Grand Central Station. By 1956, the person known as the Mad Bomber had targeted public places such as movie theatres with more than 30 bombs. In December 1956, one bomb hidden within the seat cushion of a movie theatre seat injured six people. A wave of panic set in among the people of New York. Metesky had improved his bomb-making skills over the years. As a result, the devices he left all over New York were impossible to trace. As the bombs grew in destructive power, so too did
the public demand that the NYPD capture the Mad Bomber.

Traditional investigation had been completely unsuccessful, so members of the NYPD crime lab decided to use a radical approach. The suggestion of a psychological profile was not an entirely new idea, but it stimulated much discussion. Acting on a recommendation from internal police sources, a Manhattan criminal psychiatrist named Dr. James Brussel was approached for assistance.

Dr. Brussel, having once served as the Assistant Commissioner of Mental Hygiene for the State of New York, was aware of the ongoing investigation and was interested in the suspect’s personal motivation. His previous counterintelligence work for the FBI and professional background in neuropsychiatry during World War II prepared him for what he was about to take on.

Dr. Brussel reviewed the case file and developed a psychological profile of the suspect, deducing that he suffered from mental illness, most likely paranoia. Dr. Brussel’s profile of the suspect identified him as a past employee of Consolidated Edison, approximately 50 years of age, meticulous in terms of behavior, with language patterns indicative of foreign ancestry. Letters written by the suspect were subjected to handwriting analysis, and his writing ability and language skills supported the belief that he had likely not attended college. Dr. Brussel reached other conclusions as well,
some of which were seen as dubious. Some of these included the assumption that the suspect was single and living with a female relative who was not his mother, based on the phallic nature of his bombs and subsequent handwriting analysis that suggested the suspect drew the letter “W” in a sexually suggestive manner.

Dr. Brussel suggested that, contrary to conventional wisdom, details of the profile should be widely publicized in an attempt to draw out the suspect. As all major New York papers began to publish a summary of the profile, various people began coming forward to confess to the bombings, but holdback evidence such as crime scene photos and writing samples enabled police to eliminate them quickly. Additional leads flooded in, identifying a number of people suspected of fitting the profile. During this time, Metesky continued writing letters, and even called Dr. Brussel directly, warning him to remove himself from the investigation.

Meanwhile, staff at Consolidated Edison continued to review personnel files in hope of finding a past employee who fit the profile. A clerk soon stumbled upon a personnel file for a person named George Metesky of Waterbury, Connecticut, an area north of New York which Dr. Brussel thought may be the home of the suspect. The document revealed that this individual had suffered a work-related accident in the early 1930s and blamed it for his subsequent bout with tuberculosis—a claim that was dismissed in court. After his disability claim was denied, Metesky had written several threatening letters to the company, some of which used
language suspiciously similar to that used by “The Mad Bomber”.

The still unidentified bombing suspect responded to a newspaper article and disclosed details of the work-related injury that led to his sense of outrage with Consolidated Edison. This information tied him to the personnel files and identified Metesky as a prime suspect. In January 1957, Metesky was arrested, confessing his involvement almost immediately. The profile was a nearly perfect fit. Interestingly, Dr. Brussel had stated that the suspect would be wearing a double-breasted suit when he was arrested. When police requested that Metesky change into new clothes before being transported to police headquarters, he donned a double-breasted suit, buttoned up just as Dr. Brussel had predicted!

Dr. Brussel’s pioneering work on the Mad Bomber investigation resulted in fame and further involvement in other criminal investigations. It served as a basis for further development of psychological profiling as a key component in the investigation of serial criminals.

George Metesky was judged not to be criminally responsible due to his state of acute paranoia, and he was committed to a mental hospital. He was released in 1973 and lived his final years at his family’s residence in Connecticut, dying at the age of 90 in 1994.

Criminal profiler Robert D. Keppel was made famous by striking a working relationship with one of history’s
most grisly serial murderers, Ted Bundy. While Bundy was serving time for committing more than 30 murders, Keppel asked him to help him create a profile of the then-at-large Green River Killer. In addition, to getting Bundy’s help with this profile, Keppel was also able to get Bundy to confess to several more unsolved murders.

The Mad Bomber case is important in the development of criminal profiling as an effective tool to narrow the suspect pool by inferring important information about a possible suspect from the crime data. In this case, the profiler’s psychological ideas led police to Metesky.

**CHAPTER TWO KEY CONCEPTS**

1. The main objective of criminal profiling is to analyze the observable behavior of an offender in order to infer his likely personal characteristics and future behavior.

2. Criminal profiling is especially suited for serious, serious crimes where a pattern of behavior can be established.

3. The offender’s behavior is analyzed according to four basic stages: antecedent, method and manner, body disposal, and post-offense behavior.

4. Modus operandi refers to the functional behavior that is required to commit a crime, while signature is behavior that is linked to the psyche of a specific offender and points to his
psychological needs and desires. Signature is more fixed than MO.

5. Knowledge of the victims can enhance the understanding of the offender’s behavior and motivations.

REFERENCES


CHAPTER 3. PIONEERS AND ORIGINS OF CRIMINOLOGY

The objectives of Chapter 3 are the following:

1. To provide a brief overview and timeline of the most important developments in the history of criminology.

2. To explain the main theories of criminal behavior.

3. To highlight how the orientations of different theories should not be viewed in isolation to understand crime.

4. To introduce the main pioneers of criminology and their most important works.

ORIGINS AND TIMELINE OF CRIMINOLOGY

Within the scope presented here, only a very brief summary is given of the origins and basic timeline of the development of criminology. At a very high level the stages of criminology from the Middle Ages to the 1900s and after are: (1) demonic perspective, (2) classical school, (3) neo-classical school, (4) positivism, and (5) sociological criminology. Although modern criminology may seem like a relatively young discipline, humans have been theorizing about crime and its causes since the first time rules were made, which people were observed
breaking. The thoughts about crime, criminals, and the best prevention approaches in the past—and even today—was strongly influenced by the social and intellectual currents of their time. In pre-scientific days explanations for bad behavior were often of a religious or spiritual nature. The demonic perspective of crime included two basic models to explain behavior, namely the temptation model and the possession model.

**Demonic Perspective**

In the Middle Ages, between the 1200s and 1600s, any discussion of the existence of evil behavior in the world was based on religious explanations. The basic premise of the temptation model is that people are weak and temptations to sin are impossible to avoid. Based on the legacy of the Original Sin, all human beings were considered born sinners. Usually the gift of God kept people abiding by the rules, but if they deviated from this line it was because they have lost their guide and compass. However, the belief was also that an individual always retained an inherent ability to refuse to sin and that beleaguered individuals can be deterred or assisted to refrain from sin with spirituals rewards and promises compared to the threat of eternal punishment, suffering, and despair. Therefore, public humiliation and banishment were mostly used by religious societies to control their deviant populations. Capital punishment would be a last solution for serious offenders.

The possession model held that once a person is possessed by an evil spirit, he or she is no longer
responsible for their actions. The proverbial devil has taken control of the person’s mind and body resulting in evil behavior. The question remained whether good or moral persons can become possessed. The way that the person used to be “cured” of demonic possession is through exorcism—a religious ritual that was aimed at expelling the “unclean” spirit from the body.

Before the Classical School of criminology took hold, there was another line of thinking in the 1500s and 1600s where more intellectual types believed that the human character and personality are observable in physical appearance. Such fold wisdom was originally systematized by an Italian physician by the name of Giambattista della Porta, who developed a theory called physiognomy in the 1550s. He claimed that the study of physical appearance could reveal whether it is likely that a person will engage in criminal behavior. One such an example is thieves, who were thought to have large lips and sharp vision. During the Renaissance period that lasted roughly up to 1600, there was a change of thinking from God-centered supernaturalism to a more human-centered explanation of criminal and deviant behavior. As such, human thinking moved away from the absolute authority of a fixed pre-determined behavior to the modern scientific method. Following the Renaissance, the Enlightenment, which lasted between 1650 and 1800, was a period that is associated with advances in mathematics, science, and the dignity and worth of individuals as epitomized by the concept of human rights. This way of thinking led to reforms in responses
to criminal behavior, which gained impetus by the work of Cesare Beccaria, which started the Classical School.

**Classical School**

The Classical School of criminology is a broad label for a group of thinkers of crime and punishment in the 18th and 19th centuries, of which Cesare Beccaria (1738-1794) and Jeremy Bentham (1748-1832) were the most important pioneers. At the time the use of torture was widespread in Europe to obtain confessions and force self-incriminating evidence to prove deviant behavior. The basic premise of the Classical School was that crime was committed out of free will and that individuals are able to weigh the consequences of their actions. Punishment should be administered to deter people from engaging in criminal behavior by introducing a suitable negative consequence. The movement also proposed that laws be codified in advance, that people should be presumed innocent until proven guilty, and that torture is not valid or acceptable. Punishment should be certain and swift and aimed at preventing crime by deterrence. The following Neo-Classical School was a basic revision of the Classical School.

**Neo-Classical School**

Scholars and thinkers after the era of the Classical School of criminology recognized that a purely free will approach had a number of shortcomings and that there can be situations or conditions where behaviors can be very irrational or made in self-defense. The leading
proponents of the Neo-Classical School were Gabriel Tarde (1843-1904) and one of his students, Raymond Saleilles (1855-1912). They also introduced the concept of “mistake of fact”, which is defined in legal terms as “an error that is not caused by the neglect of a legal duty on the part of the person committing the error but rather consists of an unconscious ignorance of a past or present material event or circumstance or a belief in the present existence of a material event that does not exist or a belief in the past existence of a material event that did not exist.” As such, a mistake of fact, which can include anything from mistaken identity to an inaccurate belief or assumption, is a factor in reducing or eliminating criminal culpability (or accountability), but is not born from unconscious ignorance or forgetfulness. So, according to the Neo-Classical School, not all persons are completely responsible for their actions, and explanations of mental illness and concepts of positive treatment were introduced. The movement also started to categorize motives in order to better understand the dynamics of crime, and begun to distinguish between instrumental and expressive motivations. These are very important concepts when we engage in the criminal profiling process. Instrumental crimes are those conducted for explicit, future goals (such as to acquire money or improve one’s social position), whereas expressive offenses are often unplanned acts of anger, rage, or frustration, and therefore has a central psychological or emotional component that is determined by the context, situation, offender characteristics, and offender-victim relationship. By
now, there was an increasing faith among intellectuals that science could provide an answer for everything. Great strides were made in biology after Charles Darwin’s works on the evolution of species and the ideas abounded that people were born with criminal tendencies. This marked the beginning of the Positivism.

**Positivism**

During this time, theories of character resurfaced and gained a lot of traction. One such example was the System of phrenology that was proposed by Franz Josef Gall and by which he believed that character could be assessed from the physical features of a person’s skull. The idea was that cognitive functions (i.e. thoughts and emotions) are localized in the brain and that areas of the brain that are physically bigger than others would determine a person’s attitude and behavior. Another big impact in this time was the theory of atavism by Cesare Lombroso. He proposed that criminality is a born feature as a sort of a throw-back to revert to the barbarism of ancestral types. During this period the biggest problem was that scientific inquiry took a long time as was to a large extent left behind and was inadequate to prove (or disprove) new theories. Therefore the Positivist School basically advocated the concept of determinism, and believed that the punishment should fit the individual criminal and not necessarily the crime, which led to indiscriminate and disparate criminal justice practices. According to Positivism, the basic determinants of human behavior are genetically determined, and a distinction was made on these grounds between genders
and races. To a certain extent, current advances made in the study of criminal behavior often centers around genetic markers, phenotypes, and brain functioning that have an impact on behavior. However, genetic features are viewed as one dynamic in an integrated model of criminal behavior that also include (beyond genetic predisposition), developmental and contextual factors in our environment and interactions with other people since early childhood. Positivism was followed by the Progressive Era (from about 1900) that introduced social ideologies and theories of crime.

Sociological Criminology

In this time, social reforms were at the forefront and criminology largely turned away from the previous concept of biological determinism to cultural and social determinism. Instead, the argument became that behavior is caused by what people experience in their environments, therefore negative behavior can be changed by changing the contributing environmental aspects. Criminology became less concerned with the causes of crime from a genetic and biological point of view, and more interested in factors on an integrated aggregate level that incorporated the effects of social structures, neighborhoods, subcultures, economic factors, and so forth. Structural/cultural theories such as the Chicago tradition and anomie strain model developed (see Figure 1 for an overview of the timeline of criminology).
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<td>The justice model</td>
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<tr>
<td>1970s</td>
<td>Administrative/actuarial criminology</td>
</tr>
<tr>
<td>1980s</td>
<td>Feminist criminology</td>
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<td>1980s</td>
<td>Black and anti-racist criminology</td>
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<tr>
<td>Late 1970s onwards</td>
<td>Focaudian genealogies and governance</td>
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<td>1980s</td>
<td>Left realism: Lea and Young</td>
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<td>1990s</td>
<td>Resurgence of radical right: Murray, Wilson</td>
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<td>1990s</td>
<td>Reintegrative shaming theory</td>
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<td>1990s</td>
<td>Cultural criminology and the seductions of crime</td>
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<td>1990s</td>
<td>Postmodern criminology</td>
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<td>2000s</td>
<td>Globalisation of crime</td>
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<td>2000s</td>
<td>Risk criminology</td>
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<td>2000s</td>
<td>Criminologies of war and terrorism</td>
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<td>2000s</td>
<td>Human rights</td>
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<tr>
<td>2000s</td>
<td>Green criminology</td>
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</tbody>
</table>

Figure 3.1: *Timeline of Criminology* (Adapted from Carrabine, Cox, Lee, Plummer, & South, 2009, p. 2)

Where the Sociological Criminology era searched for factors outside the individual to explain criminal behavior by reference to the institutional structure of
society, from the 1950s to 1970s there were increasing dissatisfaction with this strong structural approach that made it seem as if individual personality and other characteristics were mostly irrelevant to their behavior. As such, during the modern periods, criminology moved towards the integration of sociological and psychological factors to explain criminal behavior. Examples are control and labelling theories. In this time, a new conservative mood arose in the United States and Europe, after the Second World War and height of the Cold War; theories became more critical of modern society and the classical views of free will and rationality emerged as a result in the 1980s. Rational choice, deterrence, and routine activities theories forms part of this new wave, and had important implications for criminal justice policies. But, with the 2000s, rapid advances in technology made a resurgence of neurological, genetic, and biosocial theories possible, which viewed behavior as a result of various biological factors interacting with one another in the person’s past and present environments. These are expected to be increasingly incorporated into the modern integrated view of criminal behavior.

PIONEERS OF CRIMINOLOGY

As it is an exhaustive list that can probably fill a large series of books, only a select few (past and modern) pioneers—13 to be exact—of different schools and theories of criminology are briefly discussed to present a general idea of the development of criminology from its
early periods to the modern day. However, these selected individuals are a good representation of the historical development of criminology and the theories of criminal behavior through time.

**Franz Joseph Gall and Phrenology**

The work of German neuro-anatomist and physiologist, Franz Joseph Gall (1758-1828) was briefly raised in the previous section. He was the founder of the concept of phrenology, which helped establish psychology as a science, albeit controversial and dubious in certain aspects at the time. According to Livianos-Aldana, Rojo-Moreno, and Sierra-San Miguel (2007), phrenology had a major influence on science and society as it pervaded culture. Although it was eventually largely discarded as a pseudoscience and charlatanism, it was the start of the concept of brain localization, established psychology as a biological science, and played an important part in the development of evolutionist theories, anthropology, and sociology. Phrenology focused on measurements of the human skull, based on the concept that the brain is the organ of the mind, and that certain brain areas have localized, specific functions. Therefore, the physical shape of the skull would indicate personality, attitudes, and behavior.

**Cesare Lombroso and Positivist Criminology**

The work of Cesare Lombroso (1835-1909) has also been briefly mentioned before. He was an Italian criminologist, physician, and founder of the Italian
School of Positivist Criminology. Lombroso rejected the ideas of the Classical School, and he advocated the theory of anthropological criminology that essentially stated that criminality was inherited, and that the “born criminal” could be identified by physical defects that resemble the barbaric behavior of ancestral types. He proposed that trait developments with time are linear and takes time before it is fixed, and can therefore bring forth a dysfunctional ancestral phenotype. A phenotype is defined as the composite of an organism’s observable characteristics or traits that results in behavior and products of behavior. A phenotype is formed by the expression of an organism’s genes in relation to interaction with his environment. The concept of this phenotypical reversion is known as atavism.

**Francis Galton and Behavior Genetics**

Sir Francis Galton (1822-1911) was an English Victorian progressive, anthropologist, and psychologist, best known for his application of statistical methods to study human differences and the inheritance of intelligence, and was a pioneer in eugenics, a term which he introduced, as well as the phrase “nature versus nurture”. Eugenics refers to the beliefs and practice of improving the genetic quality of the human population by various means and methods. Early on, it was defined by Osborn (1937) as a social philosophy advocating the improvement of human genetic traits through the promotion of higher reproduction of people with desired traits (positive eugenics), and reduced reproduction of people with less-desired or undesired traits (negative
eugenics). At its peak of popularity, eugenics was supported by a wide variety of prominent people. However, it was increasingly condemned later based on concerns for human rights.

**Henry H. Goddard and Feeble-Mindedness**

Henry Herbert Goddard (1866-1957) was an American psychologist and eugenist who is known for his conceptualization of feeble-mindedness. He also introduced the term “moron” and was a leading advocate of the widespread use of intelligence testing in societal institutions such as schools, hospitals, the criminal justice system, and the military. He played a major role in the then emerging field of clinical psychology by proposing assessment and special education for mentally disabled children. He was the first American psychologist to testify in court that subnormal intelligence should limit the criminal responsibility of defendants; a view that is still considered today.

**Emile Durkheim and Social Integration**

Emile Durkheim (1858-1917) was a French sociologist, psychologist, and philosopher who was best known as the principal architect of modern social science and father of sociology. Most of Durkheim’s work was concerned with the mechanisms by which societies maintained their coherence and integrity when traditional social and religious ties were no longer assumed. He was instrumental to distinguish social science from psychology and political philosophy, and
refined the concept of positivism. For him, sociology was the science of institutions in the broader meaning of “beliefs and modes of behavior instituted by the collectivity” and its aim being to discover structural social facts. As such, Durkheim was a major proponent of structural functionalism, which is a framework for building theory that views society as a complex system whose parts work together to promote solidarity and stability.

**Robert King Merton and Strain Theory**

Following on the work of Emile Durkheim, American sociologist Robert King Merton (1910-2002) developed concepts such as “unintended consequences”, “reference group”, “role strain”, “role model”, and “self-fulfilling prophecy”, all central elements of modern sociological theory. Perhaps the most important was his conceptualization of behavior of a person or group in the context of their assumed roles and comparison to reference groups. Also, a belief or expectation, correct or incorrect, affects the outcome of a situation or the behavior of an individual or group. The concept of social roles was the central component of Merton’s theory of social groups. Merton therefore introduced powerful concepts to reflect on the meaning and influence of social science. He was critical of classical functionalism, which viewed society as something akin to a well-oiled machine, preferring to explore dysfunctional mechanisms in society, including negative consequences of institutional failures.
Walter Reckless and Control Theory

American criminologist Walter Cade Reckless (1899-1988) is known for his containment theory of criminology, which stated that juvenile delinquency is most often the result of a breakdown in moral and social forces by which deviant behavior is usually controlled. Therefore, control theory is the idea that there are two basic control systems—internal and external—that work against any predisposed tendencies to engage in criminal behavior. As such, dysfunctional behavior occurs when there are weak containing social systems and/or weak external (institutional) controls. According to control theory, people act rationally, but if they are not positively influenced by social bonds that makes conforming to norms more attractive, they will deviate. Essentially, humans are selfish beings who make decisions based on the choice that benefits our needs or desires best. In a continuation of Reckless’ work, Travis Hirschi published a groundbreaking book, “Causes of Delinquency”, in 1969 that had an important influence on criminology during the next three decades. Hirschi argued that delinquency can be explained by the absence of social bonds. He identified four elements for social bonds, namely attachment, commitment, involvement, and belief.

Jeremy Bentham and Cesare Beccaria’s Classicism

The importance of the works of Italian criminologist and jurist Cesare Beccaria (1738-1794), and British philosopher and jurist Jeremy Bentham (1748-1832) has
already been mentioned. Beccaria’s most important work is the treatise On Crime and Punishment written in 1764, which condemned torture and the death penalty, and was a founding work in the field of penology. The book was the first full-scale work to tackle criminal reform and to suggest that criminal justice should conform to rational principles. Bentham is primarily known today for his moral philosophy, especially his principle of utilitarianism, which evaluates actions based upon their consequences in terms of the “greater good”. Bentham arguably developed an early form of what is now often called “legal positivism”, or a philosophy of law that emphasizes the social construction of laws. Legal positivism does not base law on divine commandments, reason, or human rights, but only by the ways in which the laws have been created.

Isaac Ray and Forensic Psychiatry

Isaac Ray (1807-1881) was an American psychiatrist, and is considered one of the founders of forensic psychiatry, a field where knowledge and application of psychiatry is used to inform legal decision-making. In 1838, he published “A Treatise on the Medical Jurisprudence of Insanity”, which served as an authoritative text for many years. Arguments contained in the publication were extensively used in the English trial of Daniel M’Naghten in 1843, a case that today still informs principles and views of the insanity defense based on the defendant’s ability to distinguish right from wrong in favor of a broader approach based on causation.
Gabriel Tarde and Crowd Psychology

Jean-Gabriel Tarde (1843-1904) was a French sociologist, criminologist, and social psychologist who conceptualized sociology as based on small psychological interactions between individuals. Tarde is viewed as a precursor of Durkheim’s contributions to the mainstream of social theory, but he initiated the concepts of “group mind” (i.e. the desire for harmony or conformity in the group results in an irrational or dysfunctional decision-making outcome), “crowd psychology” (i.e. behavior is influenced by the loss of the responsibility of the individual and the impression of universality of behavior in a group), and “herd behavior” (i.e. individuals in a group acting together without planned direction).

Hans Gross and Criminalistics

Austrian criminal jurist Hans Gross (1847-1915) is believed to be the father of the field of criminalistics. The release of his book, titled “Handbook for Coroners, Police Officials, and Military Policemen” in 1893 is considered the birth of criminalistics. The work combined in one system fields of knowledge that had not been previously integrated, such as psychology and science, and which could be successfully used against crime. Criminalistics, also referred to as forensic science, is the scientific method of gathering and examining information (or physical evidence) about the past, which is commonly applied in modern criminal investigations to guide the criminal justice process. Criminalistics is a very
important tool in solving criminal cases and are used alongside conventional investigative techniques (e.g. canvassing, interviewing, intelligence, observations, surveillance) and criminal profiling.

**Michael J. Lynch and Green Criminology**

The concept of Green Criminology is relatively recent, being introduced by Michael J. Lynch in 1990 and expanded on in his 1992-book titled “Corporate Crime, Corporate Violence”, which already eludes to the scope of this criminological perspective as the study of crimes and harms against the environment that are broadly conceived to include the study of environmental law and policy, the study of corporate crimes against the environment, and environmental justice. It is seen as areas that were previously neglected by criminology, but present a considerable challenge to the modern understanding and management of crime. The initial grounding of the theory was in political economic concepts, but was extended to look at broader ecological damage that has become a grave concern in recent times.

**George Rigakos and Risk and Actuarial Criminology**

Canadian scientist and criminologist George Rigakos is a present-day specialist in the development of an analytic orientation to explore and develop actuarial practices within the criminal justice system as a strategy to manage risk while being forward-looking instead of retributive and an apolitical rationality (Rigakos & Hadden, 2001). Although George Rigakos is not a
historical pioneer in the field of criminology, he has introduced basic concepts that are also very important in the application of criminal profiling techniques and their interpretations. As will be explained later, actuarial methods are important in punishing and policing concepts. According to Harcourt (2003), the overall focus of criminal sentencing had become the category of crime rather than the individual characteristics of the individual offender. Incapacitation theory (i.e. removing offenders from society for lengthy periods) had replaced the previous rehabilitative model. The driver behind these changes is the increasing reliance on mathematical and statistical methods (i.e. actuarial science) to assess risk and make predictions of behavior. In a later chapter, we will weigh the pros and cons of this new trend in the study and application of criminology.

CONCLUSIONS

In this chapter, the historical development of criminology in terms of main concepts and theories was briefly explored. It is evident that, although the principles and explanations of criminal behavior are very broad and varied, and have come and go in prominence in recent centuries, there are (very broadly speaking) three main orientations that are believed to underlie criminal behavior, namely heritable (genetic and biological), psychological (personality and other individual traits), and social/environmental. Even more important is that these constantly interact since birth to create conditions that may be more or less controlling to
conform our behavior to acceptable norms. Also, the application of this knowledge led to different interpretations in criminal justice, from retroactive concepts of punishment and retribution, to proactive measures of rehabilitation and deterrence. The question of nature versus nurture and the amount of free will that we possess to determine our behavior will remain topical for the foreseeable future.

CHAPTER THREE KEY CONCEPTS

1. The main theories in criminology history are demonic perspective, classical school, neo-classical school, positivism, and sociological criminology

2. In general, conceptualizations moved from religious perspectives of criminal behavior, to pre-determined, rational choice, and social structure explanations.

3. Modern theories of crime tend to be more integrative, taking internal and external factors into account.

4. It is important to consider that any explanation of criminal behavior is influenced by the conditions of the time/era in which it was conceptualized.

5. Criminal profiling, as a conceptual approach and practical technique, applies criminological theories to link aspects in the suspect’s
observable behavior with his or her personal characteristics and environment.

REFERENCES


CHAPTER 4. PSYCHOLOGICAL EXPLANATIONS OF CRIMINAL BEHAVIOR

The objectives of Chapter 4 are the following:

1. To provide a brief overview of psychological theories of criminal behavior.
2. To explain how psychoanalytic mechanisms impact on deviant behavior.
3. To highlight how cognitive and attachment development associate with dysfunctional behavior.
4. To describe learning and trait theories in the context of criminal behavior.
5. To explore the link between mental illness and crime.

INTRODUCTION TO PSYCHOSOCIAL THEORIES

Deviant behavior refers to any behavior that is contrary to the dominant norms of society at a specific time and place. As illustrated in previous chapters, there are various different theories on what causes a person to engage in deviant behavior, including biological explanations, psychological explanations, and sociological explanations.
Psychoanalytic theory, which was developed by Sigmund Freud, states that all humans have natural drives and urges that are repressed in the unconscious. Furthermore, everyone has criminal tendencies, which are usually curbed by a process of socialization, which is defined as the continuing process whereby an individual acquires a personal identity and learns the norms, values, behavior, and social skills appropriate to his or her social position. Psychoanalytic theories are based on the conceptualization of personality in terms of a three-part structure: (1) id represent the pleasure principle, unconscious biological drives, and wants instant gratification, (2) the ego represents the reality principle, which takes into account practical considerations and social conventions that may counter the id, (3) the superego or conscience incorporates moral standards of society, distinguishes right from wrong, and forces the ego to control the id.

Based on Freud’s principles, psychoanalytical theorists explain criminal behavior as follows:

1. The actions and behavior of an adult are understood in terms of childhood development.

2. Behavior and unconscious motives are intertwined, and their interaction must be unraveled in order to understand criminal behavior.
3. Criminal behavior (and other dysfunctional behavior and emotions) is essentially a representation of psychological conflict. Therefore, psychoanalytic theories of criminal behavior emphasizes early childhood experiences, especially how a person deals with early deprivation and trauma. It is proposed that those with criminal tendencies have weak egos and damaged personalities, which underscores the need for longer-term individual interventions in order to change a person’s behavior (Ellis, Abrams, Abrams, Nussbaum, & Frey, 2009). A child that has developed dysfunctional attachments and is improperly socialized, could develop a personality disturbance that results in the inwards or outwards directing of antisocial impulses. It is commonly accepted that those who direct these impulses inward become neurotic while those that direct them outward become criminal. Another perspective on the psychological causes of criminal behavior that has developed from psychoanalytic views is the attachment theory of deviance and offending.

ATTACHMENT THEORY

An early developer of the attachment concept, John Bowlby, proposed that the way a child is treated has a powerful influence on his or her development and later personality formation and function. There is a notion that a secure base and bonding, especially with the mother as primary caregiver, is a fundamental psychological need of the child. If emotional support is
experienced as consistent from early on, the child forms beliefs that people can be trusted and is therefore able to connect with others emotionally. If, on the other hand, the child experiences emotionally detached or inappropriate parenting, the child learns that others cannot be relied on for emotional support, which leads to a negative view of themselves and others and they struggle to form and maintain healthy relationships. These mechanisms are called secure and insecure attachments respectively. Basically, it is the interactive style of the caregiver with the response feedback from the child that determines whether an attachment is positive and negative.

<table>
<thead>
<tr>
<th>Attachment Pattern</th>
<th>Caregiver Style</th>
<th>Child Response</th>
</tr>
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<tbody>
<tr>
<td>Secure</td>
<td>Consistent and appropriate</td>
<td>See caregiver as secure base for exploration</td>
</tr>
<tr>
<td>Avoidant</td>
<td>Little to no response to distressed child</td>
<td>Treats strangers similar to caregiver. No attachment, low self-esteem, and negative self-image</td>
</tr>
<tr>
<td>Ambivalent/Resistant</td>
<td>Inconsistent between appropriate and neglectful responses</td>
<td>Anxious because of inconsistent caregiver</td>
</tr>
<tr>
<td>Disorganized</td>
<td>Neglectful or abusive behavior</td>
<td>Lack of coherent attachment that manifests in contradictory and dysfunctional behaviors</td>
</tr>
</tbody>
</table>

Table 4.1: Attachment Patterns

It is the disorganized attachment pattern that is mostly associated with problematic behaviors such as stealing, lying, cruelty to animals, bullying, tantrums, and self-harming. As such, juvenile delinquency and criminal behavior is commonly associated with abuse and neglect during childhood, especially physical and emotional abuse. In addition, a disorganized attachment is
expressed in a poor development of conscience, poor impulse control, lack of insight, poor interpersonal skills and relationships, lack of emotional awareness and sensitivity, reduced cognitive ability, and general developmental problems. However, it is important to understand that not all abused children become dysfunctional or criminal adults. Howe (1995) explained: “Although not all disturbed children grow up into antisocial adults, most adults who regularly commit crimes or drink excessively and exhibit seriously unacceptable social behavior have suffered disturbed relationships during childhood.”

However, there is some dissent among theorist about the role that poor attachment play in criminality. In their general theory of crime, Gottfredson and Hirsch (1990) argued that insecure attachments tend to produce troubling behaviors in youth and does not necessarily develop into adult criminal behavior. They believed that the essential element of criminality is the absence of self-control and that such control is learnt. Therefore, early attachment do not automatically pose risk for subsequent behavioral problems. However, it does create a risk factor, which, in the presence of other social, genetic, and environmental factors increase the probability of behavioral problems and eventual criminal behavior. The case study of Aileen Wuornos at the end of this chapter illustrates the potential pathway to homicidal behavior from early attachment problems.

**Cognitive Development Theory**
Cognitive theorists are interested in the development of an individual’s mental processes and how criminal behavior can possibly be activated in the process. It will determine how they perceive their social environment and learn to solve problems. Piaget (1932) argued that children’s reasoning and other cognitive processes develop in a systematic and linear fashion. This determine how people view themselves, others, and the world in general. Through significant and repetitive experiences a child develops a core belief system from a young age, during which all his or her experiences are arranged in a structured way with the subconscious objective to make sense and meaning of everything that is happening and to facilitate predictions and responsive behavior in the future. As such, a belief system creates rules and attitudes that activate and organize thoughts and feelings in answer to stimuli from the environment. If experiences, especially during early childhood, were distressing and traumatic, and did not satisfy the child’s most basic psychological needs such as safety, stability, love, and approval, these beliefs would likely be dysfunctional and negative. Together with a person’s innate temperament and cultural influences, their beliefs determine which natural tendencies, patterns and habits of behavior they will adopt in future. These also involve the concept of morality that are developed through the life stages. Lawrence Kohlberg, a developmental psychologist, theorized that there are three levels of moral reasoning. During the first stage, called the pre-conventional stage, which is reached during middle childhood, moral reasoning is based on obedience and
avoiding punishment, as well as a self-interest orientation (i.e. what’s in it for me?). The second level is called the conventional level and is reached at the end of middle childhood. During this stage, moral reasoning is based on the expectations that the child’s family and significant others have for him or her, and involves interpersonal accord and conformity, as well as an authority and social-order maintaining orientation. The third level of moral reasoning, the post-conventional level, is reached during early adulthood at which point individuals are able to go beyond social conventions, but they already have a social contract orientation and universal ethical principles. The levels are indicated in Table 4.2.

<table>
<thead>
<tr>
<th>Stage 1: Punishment avoidance and obedience</th>
<th>Make moral decisions strictly on the basis of self-interests. Disobey rules if can do so without being caught. What is right and wrong is determined by what is punishable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2: Exchange of favors</td>
<td>Recognize that others have needs, but make satisfaction of own needs a higher priority. What is right and wrong is determined by what brings rewards and what people want, but in a reciprocal sense.</td>
</tr>
<tr>
<td>Stage 3: Good boy/girl</td>
<td>Make decisions on the basis of what will please others. Concerned about maintaining interpersonal relations. What the majority thinks is right, is right by definition.</td>
</tr>
<tr>
<td>Stage 4: Law and Order</td>
<td>Look to society as a whole for guidelines about behavior. Think of rules as inflexible and unchangeable. Being right means showing respect for authority and maintaining the social order.</td>
</tr>
<tr>
<td>Stage 5: Social contact</td>
<td>Recognize that rules are social agreements that can be changed when necessary. Individuals are viewed as having different opinions and values, and individual rights can sometimes supersede laws if they become too destructive or restrictive.</td>
</tr>
<tr>
<td>Stage 6: Universal ethical principle</td>
<td>Adhere to small number of abstract principles that transcend specific, concrete rules. Answer to an inner conscience. Moral actions may or may not be in agreement with the public opinion or society’s laws. Ethical actions are not instrumental or a means to something else.</td>
</tr>
</tbody>
</table>
The theory of cognitive development that was originally developed by Jean Piaget, and then refined by Lawrence Kohlberg, essentially argue that those who engage in criminal behavior have basically failed to develop their moral judgment capacity beyond the pre-conventional level. In a sense, there are similar dynamics than in learning theories, as morality is learnt from the people that a person react with on a regular basis, by experience and observation. In terms of the development of a dysfunctional belief system, the theory was originally developed by Cognitive Behavior Therapy pioneer, Dr. Aaron T. Beck, but is also applicable to criminal theory. It is mainly applied to explain and treat problematic behavior from a psychotherapeutic perspective, but proposes that negative core beliefs cause emotional and cognitive distress that is either externalized as aggressive and antisocial behavior or internalized as depression and anxiety that also cause outwardly behavior problems if not regulated appropriately. All of these mechanisms are also associated with typical faulty information processing ability that poorly developed people exhibit. This includes a tendency to misread social situations and cues.

**Learning Theory**

Behavioral theory maintains that all human behavior, including criminal behavior, is learnt through interactions with the social environment. Behaviorists
argue that persons are not born with a genetic or other predisposition to engage in criminality, but they learn to think and act like that as a result of their everyday experiences that may include observing family, peers, and other role models being rewarded for deviant behavior, or criminal acts are glorified in the media, or criminal behavior is normalized in their subculture. As an example, studies have shown that children often imitate aggressive behavior of their parents, while youth in violent and criminal communities also tend to model the behavior in their neighborhood groups. Bartol and Bartol (2012) suggested that there are four basic factors that support the development of violent and criminal behavior, namely (1) a stressful event or stimulus that heightens arousal, (2) skills and techniques of aggression that learnt from, and condoned by others in the immediate environment, (3) a belief that aggression or violence will be socially or psychologically rewarded by reduced frustration, enhanced self-esteem, providing material or financial gains, or earning the praise of others, and (4) a value system that condones violence and crime in the social context. The various specific orientations within the learning/behavioral theories of criminal behavior are differential association theory, subcultural theory, and neutralization theory. Differential association theory proposes that through interaction with others, individuals learn the values, attitudes, techniques, and motives for criminal behavior. A criticism is that it rests on the premise that downplays the fact that individuals are independent, individually motivated, rational actors. Subcultural theories of crime
attempt to explain the group nature of crime in terms of groupings of people within a culture that differentiates itself from this larger culture, arguing that the underclass are faced with blocked opportunities because of their position in the social structure. It is suggested this leads to group feelings of resentment and revenge, and crime and deviance invariably follow. Neutralization theories examine the ways that delinquents preemptively find ways to neutralize (or rationalize) the guilt, shame, and negative effects on self-image that criminal acts can cause. Sykes and Matza (1957) outlined five neutralization techniques: denial of responsibility, denial of injury, denial of victims, appeal to higher loyalties, and condemnation of condemners.

As is evident from this relatively brief discussion of behavior or learning theories, people (especially youth) are not considered born with criminal tendencies, but learn aggression and deviancy through life experiences and behavior modeling. These learnt behaviors are maintained by their consequences or rewards, either through personal experience or observation of others. According to the learning theory of criminal behavior, the concern is not so much with preventing the learning to take place, but to influence the ratio between reward and undesirable outcomes.

**Trait Theories**

Traits are enduring personal characteristics that develop from early childhood in the interaction with genetic,
biological, social, and environmental factors. The two traits that are most widely associated with criminality and criminal behavior are personality and intelligence. Therefore, trait theory is essentially a view that criminality is a product of abnormal or dysfunctional biological or psychological traits. In this chapter the focus is only on psychological trait theories, as rooted in personality and intelligence. Biological factors are covered in the next chapter.

**Personality and Crime**

A number of prominent criminologists have argued that the root causes of criminal behavior are not social issues, but deeply ingrained features of the human personality and its early experiences. Here it has to be noted that most personality theories link aspects found in attachment and cognitive theories of criminal behavior to the development of a dysfunctional personality that can be linked with aberrant behaviors. It is argued that an impulsive personality and a lack of empathy for other people are among the leading individual traits of people who are at risk to become offenders.

Notable German psychologist Hans Eysenck (1916-1997) has completed numerous studies on the influence that personality has on criminality, and theorized that criminal behavior is a function of both personality features, and conditioning. In psychology and physiology, conditioning is defined as “a behavioral process whereby a response becomes more frequent or more predictable in a given environment as a result of
reinforcement, with reinforcement typically being a stimulus or reward for a desired response.” Conditioning is very much a social learning process through which we develop moral reasoning and a conscience. When this process is disturbed, antisocial behavior is more likely. Eysenck argued that neurotic and extroverted personalities are more difficult to condition, and is also linked to physiological factors such as high testosterone levels and low cortical arousal.

By definition the antisocial and psychopathic personalities are strongly related to offending. Although these types are somewhat similar and have overlapping characteristics, there are important differences. The antisocial personality disorder is recognized by the official diagnostic classifications that are most commonly used worldwide, namely the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders, current in its fifth revision (DSM-5), and the World Health Organization’s International Classification of Diseases, currently in its tenth revision (ICD-10). A summary of the recognized symptoms of Antisocial Personality Disorder (APD) are the following:

- Failure to conform to social norms with respect to lawful behaviors as indicated by repeatedly performing acts that are grounds for arrest.
- Deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure.
- Impulsivity or failure to plan ahead.
- Irritability and aggressiveness, as indicated by repeated physical fights or assaults.
- Reckless disregard for safety of self or others.
- Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations.
- Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another.

Although a psychopath possesses some of the same symptoms, it is not an officially recognized psychiatric disorder, but a legal term used to assess risk. Psychopathy is usually associated with criminality, but not all people with psychopathic features choose to engage in criminal behavior. Table 3 lists the features of psychopathy as per the Psychopathy Checklist of Canadian criminal psychologist, Robert Hare, who developed the most widely used assessment instrument for psychopathy (PCL-R). The features of psychopathy are described as follows:

1. **Glib and Superficial Charm.** Tendency to be smooth, engaging, charming, slick, and verbally facile. Psychopathic charm is not in the least shy, self-conscious, or afraid to say anything. A psychopath never gets tongue-tied. He can also be a great listener, to simulate
empathy while zeroing in on his targets’ dreams and vulnerabilities, to be able to manipulate them better.

2. **Grandiose Self-Worth.** A grossly inflated view of one’s abilities and self-worth, self-assured, opinionated, cocky, a braggart. Psychopaths are arrogant people who believe they are superior human beings.

3. **Need for Stimulation or Proneness to Boredom.** An excessive need for novel, thrilling, and exciting stimulation; taking chances and doing things that are risky. Psychopaths often have a low self-discipline in carrying tasks through to completion because they get bored easily. They fail to work at the same job for any length of time, for example, or to finish tasks that they consider dull or routine.

4. **Pathological Lying.** Can be moderate or high; in moderate form, they will be shrewd, crafty, cunning, sly, and clever; in extreme form, they will be deceptive, deceitful, underhanded, unscrupulous, manipulative and dishonest.

5. **Conning and Manipulativeness.** The use of deceit and deception to cheat, con, or defraud others for personal gain; distinguished from pathological lying in the degree to which exploitation and callous ruthlessness is
present, as reflected in a lack of concern for the feelings and suffering of one’s victims.

6. **Lack of Remorse or Guilt.** A lack of feelings or concern for the losses, pain, and suffering of victims; a tendency to be unconcerned, dispassionate, coldhearted and unempathic. This item is usually demonstrated by a disdain for one’s victims.

7. **Shallow Effect.** Emotional poverty or a limited range or depth of feelings; interpersonal coldness in spite of signs of open gregariousness and superficial warmth.

8. **Callowness and Lack of Empathy.** Lack of feelings toward people in general; cold, contemptuous, inconsiderate, and tactless.

9. **Parasitic Lifestyle.** An intentional, manipulative, selfish, and exploitative financial dependence on others as reflected in a lack of motivation, low self-discipline and the inability to carry through one’s responsibilities.

10. **Poor Behavioral Controls.** Expressions of irritability, annoyance, impatience, threats, aggression and verbal abuse; inadequate control of anger and temper; acting hastily.

11. **Promiscuous Sexual Behavior.** A variety of brief, superficial relations, numerous affairs,
and an indiscriminate selection of sexual partners; the maintenance of numerous, multiple relationships at the same time; a history of attempts to sexually coerce others into sexual activity (rape) or taking great pride at discussing sexual exploits and conquests.

12. **Early Behavioral Problems.** A variety of behaviors prior to age 13, including lying, theft, cheating, vandalism, bullying, sexual activity, fire-setting, glue-sniffing, alcohol use and running away from home.

13. **Lack of Realistic, Long-Term Goals.** An inability or persistent failure to develop and execute long-term plans and goals; a nomadic existence, aimless, lacking direction in life.

14. **Impulsivity.** The occurrence of behaviors that are unpremeditated and lack reflection or planning; inability to resist temptation, frustrations and momentary urges; a lack of deliberation without considering the consequences; foolhardy, rash, unpredictable, erratic and reckless.

15. **Irresponsibility.** Repeated failure to fulfill or honor obligations and commitments; such as not paying bills, defaulting on loans, performing sloppy work, being absent or late
to work, failing to honor contractual agreements.

16. **Failure to Accept Responsibility for Own Actions.** A failure to accept responsibility for one’s actions reflected in low conscientiousness, an absence of dutifulness, antagonistic manipulation, denial of responsibility, and an effort to manipulate others through this denial.

17. **Many Short-Term Relationships.** A lack of commitment to a long-term relationship reflected in inconsistent, undependable, and unreliable commitments in life, including in marital and familial bonds.

18. **Juvenile Delinquency.** Behavior problems between the ages of 13-18; mostly behaviors that are crimes or clearly involve aspects of antagonism, exploitation, aggression, manipulation, or a callous, ruthless tough-mindedness.

19. **Revocation of Release Condition.** A revocation of probation or other conditional release due to technical violations, such as carelessness, low deliberation or failing to appear.

20. **Criminal Versatility.** A diversity of types of criminal offenses, regardless if the person has been arrested or convicted for them; taking
great pride at getting away with crimes or wrongdoings.

Although psychopathy and antisocial personality disorder are most widely associated with crime, and offenders with these characteristics are over-represented in global prison systems, the criteria to “qualify” as a psychopath already included the presence of criminal behavior as a central component, which is a kind of circular argument, and causes fierce debate on the validity of the psychopathic personality construct in the field. Nevertheless, although the antisocial and psychopathic personality may not be synonymous with criminality, there is a clear link, which is important for any criminal profiler or other practitioner in criminal justice to understand.

**Intelligence and Crime**

The concept of intelligence is understood as a compilation of brain-based cognitive abilities, which reflects “a very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience”. Twin studies have shown that intelligence (measured as IQ) is influenced by genetics and environment at a young age, but seems to converge more towards heritability as age progresses into adulthood. The majority of studies have found IQ differences between offenders and non-offenders, with chronic adult offenders at the lowest IQ on average as a group. Various direct and indirect
relationships have been argued to cause this effect. Firstly, intelligence, especially emotional and verbal intelligence, is important in a child’s socialization process. Therefore, children with poor verbal and cognitive skills have greater difficulty completing the socialization process, which puts them at risk of under-controlled, antisocial behavior. Another explanation links IQ to crime through school performance. Less intelligent students do less well in school, which results in academic frustration. This frustration, in turn, weakens their attachment and commitment to schooling, and a weakened bond to school, as per social control theory, allows for more criminal behavior. Finally, there are various discrimination-based theories that are essentially based on differential opportunities for education and other privileges that children from more advantaged groups enjoy compared to those from poor socioeconomic circumstances. The disadvantaged children would probably be treated differently in school and elsewhere, and be less motivated to receive education and score well on IQ tests. These explanations are rooted in structural disadvantages, but are contested in empirical research.

MENTAL ILLNESS AND CRIMINALITY

The presence of a mental illness has been associated with criminality and criminal behavior for a very long time. However, with the exception of certain personality disorders—in particular antisocial and narcissistic personality disorders—drug and alcohol abuse, and to a
lesser extent, trauma-related conditions such as Posttraumatic Stress Disorder (PTSD), mental illness is not usually linked to crime. A recent study by Peterson, Skeem, Kennealy, Bray, and Zvonkovic (2014) found that only 7.5% of crimes were related to symptoms of mental illness; 3% of the crimes were directly related to symptoms of major depression, 4% to symptoms of schizophrenia disorders and 10% to symptoms of bipolar disorder. The study didn’t find any predictable patterns linking criminal conduct and mental illness symptoms over time. Two-thirds of the offenders who had committed crimes directly related to their mental illness symptoms also had committed unrelated crimes for other reasons, such as poverty, unemployment, homelessness and substance abuse, according to the research.

A study by Fazel and Danesh (2002) found that, except for personality disorders, the prevalence of other mental illnesses among prison populations are not markedly higher than in the general population. They determined that 4% of men had psychotic illnesses, 10% major depression, and 65% a personality disorder, including 47% (46–48) with antisocial personality disorder. Certain personality disorders such as antisocial and narcissistic personality disorders, and psychopathy are not surprisingly well represented among offenders as their features include a raised self-interest, disregard of rules, impulsivity, and a lack of empathy for others. Psychotic spectrum disorders, PTSD, Schizophrenia, Bipolar Disorder, and even depressive episodes can
cause criminal behavior through a temporary break with reality or high emotional arousal. Generally however, the link between mental illness and criminal behavior is significantly overstated in popular opinion.

**CASE STUDY: AILEEN WUORNOS, FEMALE SERIAL KILLER**

The case of Aileen Wuornos, American and the best known female serial killer of all times, is well documented and analyzed, including the subject of an Academy Award winning movie, Monster. Serious attachment issues seem to be linked to her pathway to criminal behavior. The case study is adapted from materials published online by Capital Punishment in Context, a resource for college courses.

From late 1989 through late 1990, the bodies of seven middle-aged white men were discovered in central Florida. The assailant had robbed all of the victims before shooting them to death and stealing their cars.

Aileen Carol Wuornos was born February 29, 1956, in Rochester, Michigan. Her father was convicted of child molestation after her birth and a few years later killed himself in prison. Wuornos’ mother abandoned her and her brother when they were young, leaving them with her parents, Wuornos’ grandparents, and their children. Childhood friends said that Wuornos’ grandfather beat her and her grandmother was an alcoholic. At 11, Wuornos began trading sexual favors for money, beer,
and cigarettes. She had her only child at 14; neighbors claimed the father was an older adult friend of Wuornos’ grandfather. The child was given up for adoption. Soon after, she began spending more time away from home, either living in the woods or hitchhiking around the country, often under assumed names. She was 14 when her family kicked her out of her house.

After her brother died in the early 1980s, Aileen moved around a lot, worked as a prostitute, and were arrested several times until her final arrest in 1991, which included assault, robbery, forgery, and illegal possession of a firearm. She had an intense and unstable relationship with Tyria Moore that ended just before her arrest. She received the death penalty and was executed in 2002.

**Psychology and Profiling**

Aileen had very poor, absent, and dysfunctional attachments from an early age. She was abused, and displayed behavioral problems from her early teens. She was sexually active, had unstable living conditions, social relationships, and deviant peer connections. These factors created conditions conducive to attachment disorder, antisocial personality disorders, and bipolar disorder that she reportedly suffered from. Her instability led her to a life of escalating criminal behavior with no protective factors that ultimately spiraled to serial murder.

From a criminal profiling perspective, the two most important questions from this case are:
What observations at the crime scene could have alerted investigators that they were dealing with a female serial killer?

Which psychological inferences about the suspect could have been made from the crime scene?

Psychological explanations of criminal behavior are perhaps the most important tools in a criminal profiler’s arsenal, but always try to consider the wider picture as any individual is made up, directly and indirectly through life experiences, by his or her inherited characteristics, environment, and social circumstances, and how these interact with each other through the course of life.

CHAPTER FOUR KEY OBJECTIVES

1. The main psychological explanations of crime are based on psychoanalytic, attachment, cognitive development, learning, and trait theories.

2. Psychoanalytical theory of criminal behavior is concerned with a child’s development as a result of early experiences.

3. Attachment theory explains dysfunctional behavior based on the lack of secure caregiver attachments in childhood.
4. Cognitive development is concerned with the mental and emotional development and the formation of negative core beliefs, which are linked to dysfunctional behavior.

5. The behavior or social learning theories explain crime through observing and modelling deviant role models and peers.

6. Trait theories explain criminal behavior by way of personality and intelligence features.

7. Mental illness, with the exception of personality disorders, are poorly associated with criminal behavior.

REFERENCES


CHAPTER 5. BIOLOGICAL BASES OF BEHAVIOR

The objectives of Chapter 5 are the following:

1. To provide a brief overview of biological explanations of criminal behavior.
2. To explain how heritable traits related to genes and DNA relate to criminal behavior.
3. To highlight how neurological defects or injury effect psychology and criminality.
4. To describe the biological imbalances that are associated with criminal behavior.
5. To explore evolutionary explanations of crime.

INTRODUCTION TO BIOLOGICAL THEORIES

Biological theories of deviance see crime and deviant behavior as a form of illness caused by pathological factors that are specific to certain types of individuals. They assume that some people are “born criminals” who are biologically different than non-criminals. The underlying logic is that these individuals have a mental and physical inferiority, which causes an inability to learn and follow the rules. This in turn leads to criminal behavior. Where earlier biological explanations of crime such as phrenology and atavism that were explained in a
previous model, proposed a direct link between physical features and criminal propensity, modern theories are far more complex and integrated, demanding the interaction of other variables, such as social, developmental, and environmental factors. Newer theories are developed at a swift pace that is supported by the rapid advances in technology such as genome sequencing, genetic analysis, functional neuroimaging, computational ability, and other neuroscience developments.

Modern biological theories reject the historical concepts of biological determinism and nature/nurture dichotomies, and believe instead that smaller genetic codes that make up the human genes may predispose criminality by interaction of its behavioral traits with environmental factors. Therefore, behavior as such is not inherited, but traits that influence how an individual reacts to his or her environment are.

**GENETICS AND CRIMINALITY**

It is argued that criminality in parents can predict delinquency in children. Of course, we inherit 50% of our genes from each of our biological parents. However, there are still no valid evidence that criminality is truly an inherited characteristic, and not largely a product of the social environment.

**Genes and the Environment**
Modern biological theories accept that bidirectional gene-environment influence can cause permanent or long-lasting changes in the phenotype and/or gene expression. To recap: a phenotype is the composite of an organism’s observable characteristics, which include behavior and products of behavior. The genotype is the full inherited instructions that is carried with the gene code, while phenotype is the resulting properties of this expression that can be observed. In Figure 5.1, the very basic interaction process between genes, physical and social environments are illustrated, and how psychological and behavioral problems tend to develop sequentially.

![Diagram](image)

**Figure 5.1: Interaction Process of Genes and Criminal Behavior**

Therefore, the question is: If one is possible to control for environment, is there a meaningful link between genetic similarity and crime? By using adoption and twin studies, it is possible to estimate the influence that environment has on behavior. Such large twin studies concluded that inherited traits accounted for only 40% of social attitudes, 70% of IQ, 50% of sexual orientation, criminal tendency, and the desire to help or hurt others (Rushton,
2000). The remaining percentage is contributed to environmental influences. However, it is also interesting to note that genes appears to increase in influence as we age. Thus, as children grow older, their home environments have less impact and their genes have more impact, just the opposite of what culture-based theories predict.

Is there a Crime Gene?

Everyone in the field agrees that there is no “crime gene”. Genetics may account for, say, half of a person’s aggressive behavior, but that 50 percent comprises hundreds or thousands of genes that express themselves differently depending on the environment. When these “switches” that can be associated with violent and aggressive behavior are present, when a child is not exposed to environmental risk factors such as abuse, poor attachments, and peer delinquency, they appear to remain latent. However, where multiple risk factors exist, genes become activated and account for 80 percent of violent behavior (Walsh & Beaver, 2009). Other recent neuropsychological research also focuses on traits that are typically associated with criminal behavior, including self-control, callousness, and a lack of empathy. Like other personality traits, these are believed to have environmental and genetic components, although the degree of heritability is debated. But, a predisposition is not destiny, as gene-criminality research continues to prove.

Epigenetics
According to a relatively new field in behavioral genetics—epigenetics—interactions with the environment can cause changes in gene function that occur in the absence of changes in DNA sequencing and can be inherited by future generations. DNA has been traditionally viewed as the blueprint for everything concerned with human life, which is inherited and fixed and therefore pre-determines the physical, mental, and behavioral fate of all individuals. Recently this view has been challenged from various disciplines, including behavioral genetics, psychiatry, and social sciences, which postulates that genes are in constant interaction with their environment, and although the genetic code is not changed in the process, the way the blueprint is interpreted, is adjusted. Epigenetics is the study of heritable changes in gene function caused by mechanisms other than changes in the underlying DNA sequence, hence allowing for different interpretations of a fixed template and result in different read-outs, which is dependent upon the variable conditions under which this template is interrogated.

DNA is wrapped around proteins called histones, both which are covered with chemical tags known as epigenomes. The epigenome shapes the physical structure of the genome, and essentially wraps inactive genes and relaxes active genes, thereby making them accessible in expression. Therefore, although the DNA code remains fixed for life, the epigenome is flexible as epigenetic tags react to signals from the environment, such as diet and stress. In this context ‘environment’ is
referred to in a broad sense and include hormonal, social, nutritional, and toxicological exposures during prenatal, postnatal, adolescent, and adult life-stages (Champagne, 2010).

Many physical, mental, and behavioral characteristics have been attributed in part to changes in the epigenome, including antisocial behavior. According to Moffit (2005), the gene-environment interplay (G x E) has a far larger impact on psychopathology than its individual components, and especially involve genes whose effects are conditional on environmental risks, such as malnutrition and abuse. As such genetic and environmental risks are often concentrated in the same population segment, the most potent risk for pathological behavior is presented. Recent research has illuminated the potential effect that environments has on the gene’s capacity to influence phenotypes, such as “sensation seeking, overactivity, fearlessness, low self-control, negative emotionality, callous and unemotional style, weak verbal ability, poor memory, executive dysfunction, frontal lobe hypoarousal, serotonergic dysfunction, and testosterone imbalance” (p. 548), which are all characteristic of antisocial behavior that are associated with criminal behavior.

**NEUROLOGICAL DEFECTS OR INJURY**

In some cases neurological defects or brain impairment/injury, especially if acquired in childhood, may play a role in causing criminal behavior. Such
defects can cause a multitude of cognitive, emotional, and behavioral disabilities, such as attention deficit and memory loss which can be frustrating and complicate thinking, planning, and other daily tasks. Personality changes are also common. Behavioral features such as quick temper, impulsivity, aggression, and poor control of their thoughts, emotions, impulses, and conduct can also be a result of a neurological defect or injury. In fact, a history of traumatic brain injury is more common among violent prisoners than the general population, but is often not uncovered in criminal cases.

Therefore, available empirical evidence suggests that deficits or damage to the frontal and temporal lobes of the brain is associated with an increase in the potential for aggressive, violent and criminal behavior. Studies have also found that:

- There is a high frequency of frontal and temporal lobe abnormalities and/or organic damage amongst juvenile delinquents.
- There is a frequent and prolonged history of physical and sexual abuse and acquired brain injury and/or brain dysfunction amongst offenders
- There is a correlation between substance abuse, brain damage and aggression.
- Alcohol intoxication aggravates the effects of frontal lobe damage.
There are disproportionately high rates of traumatic brain injury in prison populations. The fact that in prisons approximately 60 percent of adults have had at least one traumatic brain injury, compared to the 8.5% of non-incarcerated adults, strongly suggests that damage to certain areas of the brain causes psychological and behavioral traits that are linked to dysfunctional and violent behavior and are difficult to control for such a person. It is especially when such an injury occurs during childhood that its likelihood to contribute to criminal behavior increases. Williams (2012) explained further: “The young brain, being a work in progress, is prone to ‘risk taking’ and so is more vulnerable to getting injured in the first place, and to suffer subtle to more severe problems in attention, concentration and managing one’s mood and behavior.”

The study by Williams also found that persons with TBI have a higher potential to misperceive elements of a situation (e.g. not reading a social cue or emotion of others correctly, and perceive a threat when none existed), make poor social judgments, lack communication skills to negotiate or otherwise resolve a conflict, and may behave inappropriately as a result. Accordingly there is clear evidence of ongoing problems for many of those who experienced a TBI compared to their non-injured counterparts, which can be linked to criminal behavior, especially violent offenses, and, to a lesser extent, theft, and robbery. Another recent study by Hughes, Williams, Chitsabesan, Davies, and Mounce (2012) reported that youth in custody are equally more
likely to have any other form of neurodevelopmental disorder (see Figure 5.2).

<table>
<thead>
<tr>
<th>Neurodevelopmental disorder</th>
<th>Reported prevalence rates amongst young people in the general population</th>
<th>Reported prevalence rates amongst young people in custody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning disabilities</td>
<td>2 - 4%</td>
<td>23 - 32%</td>
</tr>
<tr>
<td>Dyslexia</td>
<td>10%</td>
<td>43 - 57%</td>
</tr>
<tr>
<td>Communication disorders</td>
<td>5 - 7%</td>
<td>60 - 90%</td>
</tr>
<tr>
<td>Attention deficit hyperactive disorder</td>
<td>1.7 - 9%</td>
<td>12%</td>
</tr>
<tr>
<td>Autism spectrum disorder</td>
<td>0.6 - 1.2%</td>
<td>15%</td>
</tr>
<tr>
<td>Traumatic brain injury</td>
<td>24 - 31.6%</td>
<td>66.1 - 72.1%</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>0.45 - 1%</td>
<td>0.7 - 0.8%</td>
</tr>
<tr>
<td>Fetal alcohol syndrome</td>
<td>0.1 - 5%</td>
<td>10.9 - 11.7%</td>
</tr>
</tbody>
</table>

Figure 5.2: Prevalence of Neurodevelopmental Disorders in Youth

Therefore, any form of neuro-disability is viewed as a risk associated with criminal behavior that has a direct link by way of hyperactivity and impulsivity, alienation, cognitive and language impairment, and poor emotional regulation, as well as a secondary, indirect link with other risk factors such as truancy and peer delinquency and substance use, especially when systemic risk factors also exist (e.g. detachment from education, poor parenting, and failure to recognize and meet the youth’s special needs). It should also be noted that early maltreatment have physical effects on the brain (e.g. reduced corpus callosum, cerebellar, and hippocampal volume that is associated with hypo-activity in these areas) that is especially linked with limited social and emotional regulation skills. However, there are early interventions available that work though neuroplasticity to encourage new brain organization that can result in improved psychopathology and behavior.
Neuroplasticity is the change in neural structure and function in response to experience or environmental stimuli. An example of such interventions that can improve the ability to desist from criminal behavior is mindfulness-based cognitive-behavioral therapies.

**BIOCHEMICAL IMBALANCES**

Biochemical imbalances that could influence criminal behavior include diet and nutrition, and hormonal imbalances.

**Diet and Nutrition**

Diet and nutrition is an important factor throughout life, but especially between prenatal and adolescent stages, to determine the gene-environment interaction, which has a bidirectional influence. Alcohol exposure and malnutrition before birth can have a variety of ill effects on the child, including stunted growth, poor brain development, learning disabilities, earlier puberty and sexual activity, and attentional processes. Many of the effects of prenatal malnutrition are permanent.

Gesch, Hammond, Hampson, Eves, and Crowder (2002) have also found that certain addition of certain supplements and vitamins to the diet of incarcerated youth significantly reduce their antisocial and aggressive behaviors, while hypoglycemia (low blood sugar) could imitate conditions such as anxiety neurosis, hysteria, neurasthenia (a condition with symptoms of fatigue, anxiety, headache, neuralgia and depressed mood), and
even psychosis. Children with ADHD and hyperactivity have also been associated with diabetes, obesity, or alcoholism in the family—all sugar consumption problems. In fact, three-quarters of all prisoners were found to have been hyperactive as children. Sugar has a profound influence on psychological and behavioral functioning as it is related to the elevation of epinephrine, norepinephrine, and glutamate, which are all related to excitability. A study by Barbara Reed (2004) revealed that 56% of parolees who were on a “bad diet” committed antisocial acts that violated their parole conditions, while only 8% of those on a healthy diet did the same.

**Monoamine Oxidase (MAO-A)**

Monoamine oxidase A is an enzyme that is encoded by the MAOA gene in humans and it preferentially deaminates norepinephrine, epinephrine, serotonin, and dopamine, the process by which these neurotransmitters are degraded. Elevated levels of MAO-A have been associated with major depressive disorder, suicidality, and sleep disturbances. A low activity MAO-A gene has been associated with the so-called “warrior gene”. It is linked to aggressive and antisocial behavior, in particular in reactive situations (when provoked). If this genetic variant is present, it seems to be “switched on” by substantial child maltreatment (Gottschalk & Ellis, 2010).

**Dopamine**
Dopamine is a hormone and neurotransmitter that plays a large role in reward-motivated behavior. Experience or anticipation of a pleasurable or rewarding experience (e.g. sex) increases the level of dopamine in the brain. The presence of selected dopamine receptors has been associated with an increased risk of criminality and related behaviors such as substance abuse and antisocial personality disorder (Gottschalk & Ellis, 2010).

**Serotonin**

Serotonin is another neurotransmitter that has been found to be related to criminal behavior. Elevated levels of serotonin are associated with feelings of calm and contentment; low levels are associated with irritability and gloom (Gottschalk & Ellis, 2010). Depletion of serotonin is also common in disorders such as obsessive-compulsive disorder, depression, and anxiety, as well as obsessive behavior.

**Testosterone**

Although elevated testosterone levels are commonly associated with aggressive and dominant behavior, most research studies find a weak association between criminality and testosterone. However, some studies did find that increased testosterone was associated with significant increases in anger-hostility accompanied by an overall reduction in fatigue-inertia (O’Connor, Archer, & Wu, 2004). According to Booth, Granger, Mazur, and Kivlghan (2006), testosterone has to be viewed as “one component along with other physiological, psychological
and sociological variables in interactive and reciprocal models of behavior” (p.180). Rather, it seems that there is an indirect link between testosterone and antisocial and criminal behavior: Participation in conventional social roles generally overshadows the importance of men’s testosterone levels, and is also related to lower criminality (Booth et al., 2006).

**EVOLUTIONARY EXPLANATIONS OF CRIMINAL BEHAVIOR**

Evolutionary explanations hold that aggression is ingrained in people, especially males, which is shaped by competition over scarce resources and the instinct to defend and promote own interests. Keeping in mind that evolution is essentially a process of natural selection where the organism’s prime interest is to get his genes into the next generation, and surviving long enough to do so, it is logical to argue that the traits that would have facilitate this were strengthened through the evolution process. These adaptations possibly include behaviors of aggression, sexual coercion, antisocial conduct, and nepotism (Quinsey, 2002). Aggression helps organisms to get food, acquire a desired mate, and protect territory, which if applied effectively, ensure the best offspring and his/her health and safety.

Cognitive processes also continually developed to enhance these instincts, even if they are not that valid in modern times. According to Kenrick and Griskevicius (2013), there are seven modular domains in our brain
that drives out primary—and mostly subconscious—motivation to bring about beneficial instinctive behavior. These are self-protection, mate attraction, mate retention, affiliation, kin care, status, and disease avoidance. Although these drives may have ensured our survival and gene transmission in primeval times, different priorities exist today to which our mind’s “design” has not yet adapted. This asynchronous cognitive process where these domains are activated instinctively to environmental triggers in a sort of atavistic fashion, yields a distorted perception of the self in relation to others and the world around us, causing distressful thoughts and feelings that manifest in dysfunctional, often aggressive behavior.

The majority—nearly 80% in the U.S. according to FBI Statistics—of homicidal behavior are between males who are acquaintances or family and involved in an argument of confrontation that typically involve conflicting interests. It is not far-fetched to accept that these acts of human aggression may still exist because of the reproductive consequences that aggressive behavior had for our ancestors (Gottschalk & Ellis, 2010). The same principles may apply to instrumental criminal behavior or sexual offending. Therefore, it can be argued that many acts of human aggression and violence exist because of the role they have played in passing genes on to future generations. Similarly, this would have also had a role in making males more violent than females, especially in their most active years.
Gottschalk and Ellis argued further that women in general invest more in their offspring (e.g. pregnancy, caregiving) and are therefore expected to be more discriminating when it comes to mate selection, and will favor men who are also willing to invest time and energy in the child. Men who are not inclined to make this investment, will still have an evolutionary drive to procreate, but will have reduced chances of being selected as a mate. Therefore, they may opt for other reproductive options, such as deception, intimidation, stealing and cheating to increase their resources and status, and sexual coercion. These behaviors are related to the antisocial and psychopathic personality types that we have discussed in the previous chapter. It is much more prevalent in males and appears to be gene-related. In particular, it seems that genes that favor the production of several hormones and neurotransmitters that are associated with antisocial and aggressive behavior are overrepresented in offender populations. A selection of these were briefly discussed before: monoamine oxidase (MAO-A), dopamine, serotonin, and testosterone.

**CONCLUSIONS**

The tainted history of using biology to explain criminal behavior has pushed criminologists to reject or ignore genetics and concentrate on social causes: poverty, addictions, and guns, among others. Now that the human genome has been sequenced, and scientists are studying the genetics of areas as varied as alcoholism and party
affiliation, criminologists are cautiously returning to the subject, exploring how certain genes might heighten the risk of committing a crime. According to Raine (2002): “One reason why we have been so unsuccessful in preventing adult crime is because interventions to date have systematically ignored the biological side of the biosocial equation that produces crime.” In combination with environment, genetic features of humans are eminent factors in determining psychopathology and behavior.

**CHAPTER FIVE KEY CONCEPTS**

1. With advances in technology there is a reemergence of interest in biological explanations of criminal behavior.

2. Although there isn’t a “crime gene”, hereditary factors play in interaction with the environment an important role in behavior.

3. Traumatic brain injury is significantly associated with psychological and behavioral problems.

4. A bad diet and hormonal imbalances contribute to antisocial behavior.

5. Evolutionary natural selection processes may be responsible for some of our dysfunctional thinking processes and instinctive behaviors.
REFERENCES


CHAPTER 6. HISTORY AND DEVELOPMENT OF CRIMINAL PROFILING

The objectives of Chapter 6 are the following:

1. To explain the use of criminal profiling techniques before its official introduction by the FBI.

2. To describe how criminal profiling was applied in the Jack the Ripper, Mad Bomber, and Son of Sam Cases before the FBI embarked on developing profiling.

3. To highlight how the FBI approached criminal profiling in the 1970s and beyond, and their development of criminal classifications.

4. To briefly explain the concerns that surround traditional profiling, and how Canter’s Investigative Psychology approach worked to resolve these.

5. To illustrate the practical application of a systematic profiling approach in the apprehension of the Railway Killers.

PRE-FBI HISTORY OF CRIMINAL PROFILING

Profiling as an investigative technique and forensic approach associated with many names and
interpretations for a long time. As we have seen, criminal profiling identifies the perpetrator (or unknown subject) of a crime based on an analysis of the nature of the offense and the manner in which it was committed. In this sense, the origins of criminal profiling can be traced back to the early 1800s when the likes of Jacob Fries, Cesare Lombroso, Alphonse Bertillon, Hans Gross, Ernest Kretschmer and others attempted to link behavioral predictions to personal characteristics. Although their theories had appeal for a while, it was relatively short-lived and with limited practical usefulness. However, these pioneers of criminology set the background for the emergence of modern profiling methods.

**Jack the Ripper**

The first known case where principles of criminal profiling were apparently applied was during the 1880s with the analysis made by two physicians, George Phillips and Thomas Bond based on crime scene clues to make predictions about British serial murderer Jack the Ripper's personality, lifestyle, and behavior. From autopsy information and crime scene reconstruction they concluded that the perpetrator did not have the scientific or anatomical knowledge of a physician or butcher, was physically strong, composed, daring, but a loner, probably without a skilled or significant job. They also concluded that all five crimes were committed by the same offender. Although the case remained unsolved until today, the field of offender profiling took a major leap forward, and Bond is widely regarded as the first
offender profiler. Soon after, the fiction of Arthur Conan Doyle in the 1890s created the consummate detective, Sherlock Holmes, and it was this character who spring boarded profiling to popular attention.

**Adolf Hitler**

The next major case bestowed upon the field of criminal profiling was to behaviorally and psychologically analyze German Chancellor Adolf Hitler. In 1943, Office of Strategic Services requested Dr. Walter C. Langer, a psychiatrist to develop a profile of Hitler. Langer based his analysis on Hitler’s book Mein Kampf, his speeches, and interviews with people who knew Hitler personally. He concluded that Hitler was meticulous, conventional, and prudish about his appearance and body, in good health, but with deteriorating mental health. His profile also noted Hitler’s oedipus complex, which resulted in a constant desire to prove his masculinity. Freud proposed the dynamics of the Oedipus complex that denotes the emotions and ideas kept in the unconscious by dynamic repression of a child’s desire to have sexual relations with the parent of the opposite sex. Although, according to Freud, it occurs at any early age (3-6 years), if unsuccessfully resolved, the tendency does impress on the personality formation that affects later behavior. Langer also proposed that the most possible outcome if defeated would be Hitler’s suicide.

**“Son of Sam” and the “Mad Bomber”**
Around the same time profiling has taken root in the U.S. where profilers initially relied mostly on their own intuition and informal studies. Schlossberg, who developed profiles of many criminals, including David Berkowitz (New York City’s “Son of Sam” serial killer) describes the approach he used in the late 1960s and 70s: “What I would do,” he says, “is sit down and look through cases where the criminals had been arrested. I listed how old [the perpetrators] were, whether they were male or female, their level of education. Did they come from broken families? Did they have school behavioral problems? I listed as many factors as I could come up with, and then I added them up to see which were the most common.” (Winerman, 2004, p. 66).

After 16 years, when “mad bomber” George Metesky eluded New York City police, planting more than 30 small bombs around the city between 1940 and 1956, hitting movie theaters, phone booths and other public areas, psychiatrist James Brussell was asked by frustrated investigators in 1956 to assist. He studied crime scene photos and notes that the perpetrator sent to the media from which he developed a detailed description of the likely offender. He suggested that the offender would be "a heavy man. Middle aged. Foreign born. Roman Catholic. Single. Lives with a brother or sister." Also adding “when you find him, chances are wearing a double breasted suit. Buttoned.” He also proposed that the offender was living in Connecticut, and that he was paranoid with a vendetta against Con Edison, probably a disgruntled ex-employee of the electric service company
whose headquarters were targeted by the first bomb. The profile proved extremely accurate and led police to Metesky, who was arrested in January 1957 and immediately confessed. In the following years, police in New York and elsewhere continued to consult psychologists and psychiatrists to develop profiles of particularly difficult-to-catch offenders. Dr. Brussel continued to aid NYPD and other investigative agencies until 1972. His work resulted in the arrest of Albert DeSalvo, The Boston Strangler. A little after, the Federal Bureau of Investigation, or FBI, in the U.S. started to develop a more systematic criminal profiling methodology that could lend better support to local law enforcement to solve cases.

**FBI Approach and the Behavioral Science Unit**

This work led to the establishment of the Behavioral Science Unit in the FBI in 1974, with a primary aim to investigate serial rape and murder cases. The team, with famous profilers John Douglas and Robert Ressler, based their approach on theories and categories of different types of offenders that they developed by interviewing 36 serial murderers between 1976 and 1979. Most notably, they developed the idea of the organized/disorganized dichotomy: “Organized crimes are premeditated and carefully planned, so little evidence is found at the scene. Organized criminals, according to the classification scheme, are antisocial but know right from wrong, are not insane and show no
remorse. Disorganized crimes, in contrast, are not planned, and criminals leave such evidence as fingerprints and blood. Disorganized criminals may be young, under the influence of alcohol or drugs, or mentally ill.” (Winerman, 2004, p. 66). In their approach, which will be described in more detail in the next chapter (7), the basic premise is that behavior reflects personality, and therefore, by examining clues from the crime scene, they claim to be able to conclude and predict with acceptable accuracy characteristics of a likely offender.

According to estimates by Teten (1996), FBI profiling techniques are of some assistance in 77% of cases, provide leads for stakeouts solving cases 45% of the time, and actually help identify the perpetrator (or UNSUB, unknown subject) in 17% of cases. Other studies suggest even lower rates of success. An analytical evaluation of the criminal profiling in 1997 in the United Kingdom, it was established that although profiling assisted the investigators in furthering their understanding of the case, only a small percentage reported that profiling had assisted in solving the case with an even smaller percentage reporting the use of the profile in the identification of the criminals. In this regard, out of the respondents who took part in the study, only 14.1% reported the actual assistance of criminal profiling in getting the solution to a case. Sadly, only 2.7% of the respondents reported the identification of the offenders using the data that had been obtained from profiling with 5.4% reporting that profiling offered
a structure for the interviewing of the apprehended suspects. However, 82.6% of those interviewed reported that profiling was operationally useful in a general sense with 60.9% reporting that profiling had enhanced their understanding of the cases being handled (Trager & Brewster, 2001, p. 20). This caused traditional “trait-based” approaches of criminal profiling to be questioned as the feeling was that offenders are more versatile and indistinctive in their offending behavior than widely accepted and that situational factors were not adequately taken into consideration (Kocsis, 2007). Although the realization remained that criminal profiling could add significant value to criminal investigations, especially of serious serial crimes with a psychological component, the concerns led to improved and more rigid scientific inquiry in order to refine and standardize a more accurate and reliable criminal profiling protocol. Much of this work comes from applied psychologist David Canter, who founded the field of investigative psychology in the early 1990s in the U.K.

**DAVID CANTER AND INVESTIGATIVE PSYCHOLOGY**

The investigative psychology approach and techniques are discussed in more detail in the next chapter (7), but for now if suffices to briefly mention the team’s main objectives and line of action. According to Winerman (2004), the “goal of investigative psychology’s form of profiling, like all profiling, is to infer characteristics of a criminal based on his or her behavior during the crime.
But, Canter says, the key is that all of those inferences should come from empirical, peer-reviewed research--not necessarily from investigative experience.” (p. 66).

Canter and his colleagues started by analyzing crime scene data from 100 serial murders to test the organized/disorganized offender classification of the FBI. In contrast to earlier propositions, they found that almost all serial murder involve some level of organization, not surprising if considered that a series of homicides imply escape from detection for a period, which often extend to many years and even decades. Another problem that may cause serial murder and, indeed, all criminal case explorations to be deficient, is the fact that it is by definition only based on analyses of solved crimes and known offenders. By implication, those offenders that manage to avoid capture are probably organized, intelligent, and able to hide their activities better than those who were arrested.

Their studies concluded that organized behaviors are core variables, but co-occur in clusters that can be better used to classify a crime type and motive. An example of a chart that depicts these findings in visual format is presented in Figure 6.1. In this radex model, the points in the configuration are the serial killers’ actions. They are placed on the basis of their co-occurrence, that is, the more likely the actions are to occur in the same crime, the closer together will those actions be in this space. Straight lines have been used to demarcate different themes of behavior (sexual control, plunder, execution, and mutilation). These depict the most common four
modes of actions of serial killers. The closer to the center an action is, the most frequently it is expected to occur, and is therefore also more likely to co-occur with other behaviors pinpointed in the same proximity.

Figure 6.1: Radex Model of Serial Killer Behavior

In another study, Canter and his colleagues collected crime scene data from 112 rape cases and analyzed the relationship among different crime scene actions—from what types of sexual acts the rapist demanded to whether he bound the victim. The researchers found that the types of sexual violation and physical assault did not distinguish rapists from each other; these were the core variables that occurred in most rape cases. Instead, what distinguished the rapists into categories were
nonphysical interactions—things like whether they stole from or apologized to the victim. As is evident from these research perspectives, working from the ground up, instead of relying on investigative experience-derived offender descriptions are the strength of the Investigative Psychology approach in deriving accurate and useful propositions of offender behavior that is supported by empirical research and theory.

**Elements of a Criminal Profiling Report**

To conclude, in the last section of this chapter, the typical elements of a criminal profiling report are presented in a bulleted list. The different aspects represent everything that a profiler should cover and analyze in his or her conclusions of the features of the likely offender, which is systematically considered based on crime scene behavior. Turvey (2012) listed the following elements to include in a thorough criminal profiling report:

- Overview of established facts relevant to crime related behavior
- Overview of established facts relevant to victimology
- Opinion of lifestyle risk of victim
- Opinion of the situational risk of victim
- Opinion of the risk taken by offender to acquire victim
- Analysis of scene characteristics
- Location and scene type
• Point of contact
• Offender method of approach
• Offender method of control
• Offender use of weapons
• Offender use of force
• Victim resistance
• Sexual acts
• Precautionary acts
• Contradictory acts
• Evidence of planning
• Offense skill level
• Items taken by the offender
• Verbal behavior
• Modus operandi behavior
• Motivational behavior
• Opinions of motivation evidenced by behavior inferred from crime scene

As is evident, a criminal profiling report is based on an objective interpretation of the facts by applying a systematic method of inquiry in the context of available empirical data and theory about criminal behavior instead of pure and subjective intuition that may be based on solid experience that is incorrectly or inappropriately applied, thereby introducing bias, preconceived ideas, and flawed assumptions. It can never be overemphasized how important the adoption of a systematic and scientific-based approach to criminal profiling is, which the case of the Railway Killers in London—as the first well-known instance
where the Investigative Psychology method was successfully applied—illustrates.

CASE STUDY: JOHN DUFFY, THE RAILWAY KILLERS

John Duffy was a violent rapist who embarked upon a four-year crime spree in 1982, attacking lone women near railway stations throughout various neighborhoods in London, England. It was first thought that he had committed these crimes by himself, but police eventually concluded that he had an accomplice. They would be unable to establish sufficient proof until 1997, when Duffy admitted that David Mulcahy, a childhood friend, had been involved from the very beginning.

The First Attacks

The first sexual assault occurred in July 1982 when the yet to be identified Duffy and his accomplice attacked and raped a 23-year-old woman near a train station in a neighborhood outside North London. Eighteen more attacks occurred, mainly at night, near various railway stations in the London area. Most victims were teenage girls attacked while waiting for their train to arrive.

When investigators became convinced that two individuals appeared to be responsible for the violent sexual assaults that terrorized the citizens of London, the pair became known as the Railway Rapists. It was later discovered that most of the crimes occurred as close as a five-minute walk from Duffy's house.
Operation Hart

In July 1985, three women were raped on the same night, all within a neighborhood in North London. The police quickly set up a Task Force, calling it Operation Hart. It was the largest multi-jurisdictional police investigation in the United Kingdom since the Yorkshire Ripper investigation was concluded successfully several years before.

In August 1985, Duffy happened to be arrested after assaulting his wife. His name was eventually added to the Operation Hart computer system as one of many thousands of local men who were being investigated as possible suspects.

In September 1985, another vicious sexual assault occurred. Police thought the attacker’s description resembled Duffy. He was brought in for questioning and even participated in a photo line-up. The victim was unable to identify him as the assailant, perhaps due to the traumatic stress she experienced during the crime.

The First Murders

On December 29, 1985, Alison Day, aged 19, was dragged off a train at Hackney station and repeatedly raped by Duffy and Mulcahy. She was then strangled to death with a piece of rope. This was the first time the two men had killed one of their victims, and police increased the intensity of their efforts to identify the culprit. Day’s murder meant that Duffy would now be referred in the media as the Railway Killer. Yet, still no physical
evidence was available to suggest that two men were carrying out the attacks.

In April 1986, a fifteen-year-old female was abducted from a train station in East Surrey. The teenager’s body was set on fire after she was raped and strangled, likely to try to eradicate any physical evidence that could identify the attacker.

Duffy was arrested near a local train station less than a month later—this time for the illegal possession of a knife. However, he was released without charge due to a lack of evidence, only to murder another person a week later. In May 1986, Anne Locke, an employee of a local TV station, was abducted as she arrived at a train station just outside London. Her body was found two months later, and the analysis of traces of semen found in her body confirmed that the individual known as the Railway Killer was responsible.

In the meantime, police continued to interview each of the nearly 5000 men who had been added to the Operation Hart database, requesting a blood sample at the time of each interview. This voluntary process likely was offered to each individual as a means of clearing any doubts about guilt or innocence. Duffy was interviewed on July 17, 1986, but he refused to participate voluntarily in the blood test at that time. He then committed himself to a mental hospital, perhaps as a means of covering his tracks.

The Use of Criminal Profiling
By July 1986, police were desperate to identify the person or persons responsible for this string of horrible crimes. Consequently, they requested the assistance of Dr. David Canter, an expert in behavioral science and professor of applied psychology at Surrey University. At this time, a new concept in criminal investigations was being introduced, referred to by Dr. Canter as “Psychological Offender Profiling” (also known as criminal profiling). This was the first murder investigation in England in which criminal profiling had a significant role. John Duffy, who would later be identified as the Railway Killer, was the first person in the history of the English justice system to be identified as a suspect as a direct result of this investigative technique.

To help solve the case, Dr. Canter analyzed large numbers of solved crimes using a statistical technique known as multivariate analysis. In each case, the behavior of the criminal (including the choice of victims, personal interaction with them, location and timing of each offence, and content analysis of their speech) was used as a data source. As Dr. Canter examined the details of each crime, he was able to build a profile of the attacker’s personality, habits, and traits.

He then created a profile based on witness statements, crime scene reports, and geographical information. He produced a list of seventeen personality and characteristic traits including environmental clues that the offender might display. For example, he was able to infer that the killer lived in an area of northwest London
and had an unhappy married life with no children. Interestingly, Canter relied on his background in environmental psychology to develop concepts such as the cognitive map, which would prove useful in understanding offender behavior. In fact, his research found that most British serial rapists lived within the area in which they committed their crimes.

Below is an abbreviated list of points Canter believed would fit the offender’s profile:
Duffy Becomes the Main Suspect

As the process of creating an offender profile ended, a fourteen-year-old schoolgirl was raped in a park in October 1986. When the psychological profile created by Dr. Canter was cross-referenced with the police database
of all possible suspects, the computer generated a match for John Duffy.

Duffy was placed under police surveillance. He was arrested on November 7, 1986, when he was seen stalking a woman in a park. He was questioned about his involvement in the numerous rapes and murders committed over the past four years. He offered a weak alibi involving tales of amnesia. With sufficient forensic evidence to support a successful prosecution, Duffy was charged with three murders and seven counts of rape. Police suspected that he had not committed the offences alone, but Duffy refused to cooperate any further.

Dr. Canter’s profile of the killer was accurate in 13 of 17 points. He attributed the success of his technique to an understanding of how a criminal leaves behind ‘evidence of his personality’ through his actions in relation to a crime, including specific behaviors characteristic of that person. Consistent behaviors typical of the person’s social group also provide information that can be used to develop a profile.

According to Dr. Canter, to build a profile of an offender from ‘the bottom up’ is possible. By reviewing a wide range of associated factors and operating under the premise that people behave typically consistently, the analysis of behavior patterns observed over time can provide clues about a serial offender’s ordinary behavior.

Conclusion
Duffy went to trial in February 1988. He was convicted of two murders and four rapes, but he was acquitted on the remaining charges, including the murder of Anne Locke. Duffy later revealed to a psychologist that he had not been working alone when he committed his heinous crimes. However, he revealed no further details until 1997 when he implicated childhood friend David Mulcahy, a married father of four who was later convicted and sentenced to life in prison. This marked the end of the lengthy and determined search for the Railway Killers, one that made effective use of criminal profiling.

In this case, Canter’s criminal profile, which he built “from the bottom up” as the best way to conduct such an exercise, was accurate in more than three-fourths of conclusions, contributing conclusively to the apprehension and conviction of the offender. It illustrates how a systematic behavioral inquiry and analysis can limit a possible suspect pool, which enables police to effectively direct their efforts and resources to achieve results.

**CHAPTER SIX KEY CONCEPTS**

1. Pre-modern criminologists such as Lombroso and Gross attempted the first profiling by linking physical features to behavioral predictions.

2. The first known criminal profile was compiled in the Jack the Ripper case in the 1880s.
3. In the 1950s after WW2, profiling was introduced in the U.S. and applied in the Son of Sam, and (successfully) in the Mad Bomber cases.

4. Its use continued for the next decade, but was still based on instinct and unsystematic, until the FBI introduced criminal profiling methodology on a more structured basis in the 1970s.

5. Many felt that the FBI approach was not properly scientific and still based too much on the profilers’ experience and conjecture. As a result Investigative Psychology was developed on more rigid scientific and empirical basis.

6. The principles of Investigative Psychology were successfully applied for the first time to solve the Railway Killer case in London in 1986.

REFERENCES


CHAPTER 7. MAIN APPROACHES OF CRIMINAL PROFILING

The objectives of Chapter 7 are the following:

1. To introduce the traditional FBI criminal profiling approach.
2. To explain the differences between organized and disorganized offenders.
3. To describe David Canter’s investigative psychology approach.
4. To highlight the differences between actuarial and clinical analyses.
5. To explain the inductive reasoning process.
6. To highlight risks and potential pitfalls of criminal profiling.

INTRODUCTION TO THE PROFILING APPROACHES

As we have seen in the previous chapter, the concept of criminal profiling is approached from two different angles: determining the personality and behavior of an offender through psychiatric concepts, and applying actuarial methods to predict the characteristics of a likely offender—from physical features (e.g. age, race,
disabilities), to lifestyle (e.g. employment, living conditions, transport) and skills/deficits (e.g. social, intellectual, emotional). Although the application of criminal profiling can be traced back to the early 1800s with pioneers such as Cesare Lombroso and Hans Gross, who were mentioned in an earlier chapter, the methods were not defined, structured, and made “official” until much later when the U.S. Federal Bureau of Investigation, or FBI, started to develop the modern methodology.

**Traditional FBI Criminal Profiling Approach**

Hence, even today, the analysis of behavioral evidence at crime scenes to assist in a criminal investigation is still a relatively new and unstructured activity. Criminal profiling was only recognized and awarded specialty status by the FBI in the mid-1970s. Initially the practice was very narrowly defined, and only constituted analysis of a crime scene to generate a description of a likely suspect (Douglas, Ressler, Burgess, & Hartman, 1986). The accuracy of the profile was rarely questioned, and the impact of incorrect probabilistic logic on criminal investigations was not queried. The FBI’s profiling approach was originally based on interviews with 36 convicted serial killers and rapists, which was combined with knowledge already amassed from investigators on other cases. The basis of the FBI approach is the distinction of a crime scene as organized or disorganized, from which offender characteristics are deduced further. An organized crime scene has features indicating that the
crime was planned and that the offender exercised restraint and control. A disorganized crime scene suggests unplanned and chaotic behavior with little or no control or forethought.

<table>
<thead>
<tr>
<th>Organized Crime Scene Aspects</th>
<th>Disorganized Crime Scene Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned offense</td>
<td>Spontaneous offense</td>
</tr>
<tr>
<td>Victim a targeted stranger</td>
<td>Victim/location known</td>
</tr>
<tr>
<td>Personalizes victim</td>
<td>Depersonalizes victim</td>
</tr>
<tr>
<td>Controlled conversation</td>
<td>Minimal conversation</td>
</tr>
<tr>
<td>Crime scene reflects control</td>
<td>Crime scene random and sloppy</td>
</tr>
<tr>
<td>Demands submissive victim</td>
<td>Sudden violence to victim</td>
</tr>
<tr>
<td>Restraints used</td>
<td>Minimal use of restraints</td>
</tr>
<tr>
<td>Aggressive acts prior to death</td>
<td>Sexual acts after death</td>
</tr>
<tr>
<td>Body hidden</td>
<td>Body left in view</td>
</tr>
<tr>
<td>Weapon/evidence absent or staged</td>
<td>Weapon/evidence often present</td>
</tr>
<tr>
<td>Transports victim or body</td>
<td>Body left at primary crime scene</td>
</tr>
</tbody>
</table>

Table 7.1: Organized Versus Disorganized Crime Scene Differences (Adapted from Bartol & Bartol, 2013, p. 28)

As is evident from the differences in Table 7.1 above, an organized offender likely acts on a long-held fantasy, preplans and controls variables to fit the fantasy, brings weapons and tools to the scene, and takes the victim to a secondary location that he controls. A disorganized scene is a product of a spur-of-the-moment emotional reaction, there is possible overkill, victims are more heterogeneous, the crime location is random, and weapons of opportunity is used. Disorganized crimes
tend to be more situational driven, while organized crimes are fantasy-driven. At this time it is interesting to note that many crime scenes can be considered as a mixed type, and even one offender can evolve over time or be forced to adapt during one crime. Table 7.2 below highlights differences between the offender types.

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</tr>
<tr>
<td>Transports victim or body</td>
<td>Body left at primary crime scene</td>
</tr>
</tbody>
</table>

Table 7.2: *Organized Versus Disorganized Offender Differences* (Adapted from Bartol & Bartol, 2013, p. 28)

It is clear from the distinctions that if a crime scene could be reliably classified without significant overlap (mixed features), and if crime scene characteristics could be statistically correlated with offender characteristics, the organized/disorganized dichotomy would hold great value in investigative profiling. However, these assumptions have been widely questioned in scientific
literature. This, and other criticisms of offender profiling, will be discussed in more detail further on in the current chapter.

The classical FBI approach to profiling can be divided into four consecutive stages as illustrated in Figure 1 below. During the first stage data is collected from various sources, including pathologist records, crime scene photos, victim reports, forensic science findings, and witness statements. All the information is organized and assimilated to describe the crime scene and likely offender in terms of the organized/disorganized criteria. The crime scene is reconstructed and hypotheses developed of possible sequence(s) of events, and victim and offender behavior before, during, and after the crime. With all this information at their disposal, the profiling team are now in a position to compile a brief written description of the characteristics and behavior of a probable offender. Typical components of an offender profile are likely physical and nonphysical features of the offender, and crime scene features that can be associated with offender characteristics. Examples are race, sex, age range, marital status, general employment, living conditions and location, mobility, sexual performance and maturity, psychological features, risk of a subsequent crime, probability of past crimes, likelihood of revisiting the crime scene or contacting police/media, and recommendations on best interrogation techniques.

Although there are definite concerns about the accuracy and utility of the FBI profiling method, the systematic process nevertheless provides a useful platform for a
thoughtful and organized analysis of the crime scene, victim, and offender with a focus on narrowing the suspect pool. As such, it is not intended to replace or alter traditional investigative procedures.

Figure 7.1: FBI Approach to Profiling

The FBI profiling process relies heavily on determining probable physical, demographical, and behavioral aspects of the offender, and the backbone is an understanding of criminals that is based on extensive data of past crimes and offenders. Therefore, in essence, this is an actuarial approach to criminal profiling. Actuarial methods refer to the use of statistical and
mathematical probabilities to determine likely parameters. Therefore, as the general popular (and sometimes professional) belief is that the typical serial killer in the U.S. is a white male between 25- and 30-years-old, this is the likely starting point for a baseless profile. The extent of the inaccuracy is illustrated in the real statistics below, where in fact only 16.5% of known serial killers in the U.S. are white males between 25- and 30-years-old.

<table>
<thead>
<tr>
<th>Typical serial killer profile in the U.S. media:</th>
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<tbody>
<tr>
<td>- A white male in his mid- to late twenties</td>
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</table>

<table>
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<tr>
<th>Statistics (U.S. serial killer database):</th>
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<tbody>
<tr>
<td>- Male (92.2%)</td>
</tr>
<tr>
<td>- White (52.6%)</td>
</tr>
<tr>
<td>- Mid- to late twenties (26.9%)</td>
</tr>
<tr>
<td>- White male (46.1%)</td>
</tr>
<tr>
<td>- White male in his mid- to late twenties (12.7%)</td>
</tr>
</tbody>
</table>

*Statistics compiled by Mike Aamodt (2013)*
*Read more at http://maamodt.asp.radford.edu*

In addition, several other potential problems immediately become apparent. Firstly, with an atypical crime, insufficient data is available to make a reliable inference. Secondly, available data is based on a temporal and geographical frame, which is not fixed. Thirdly, such a profile is relatively artificial and does not necessarily consider evolvement of the offender with time and situation. Therefore, a deeper understanding of the
underlying psychopathology and motivation is often lacking.

**CANTER’S INVESTIGATIVE PSYCHOLOGY APPROACH**

Another approach to criminal profiling that was championed by Dr. David Canter, a British psychologist is called “Investigative Psychology”, which was briefly mentioned before. It is thought to be a more holistic approach to profiling by adding value to the entire process, from crime scene to conviction and possibly release, including more in-depth psychological analyses. Canter (2000) explains this approach as follows:

The domain of investigative psychology covers all aspects of psychology that are relevant to the conduct of criminal and civil investigations. Its focus is on the ways in which criminal activities may be examined and understood in order for the detection of crime to be effective and legal proceedings to be appropriate. As such, investigative psychology is concerned with psychological input to the full range of issues that relate to the management, investigation, and prosecution of crime. (p. 1091).

The investigative psychology methodology utilizes a clinical psychology profiling philosophy that provides more individual insight than the FBI or actuarial methods as previously described. An inductive profiling process is applied as indicated in Figure 7.2.
Inherently, inductive reasoning is grounded in scientific theory and empirical analysis, and does not rely primarily on hypotheses. The premises that are made flow from the theory and science from which it seeks to supply strong evidence that is unbiased, can stand up under scrutiny, is objective, and accurate. Hence, the process is more nuanced than simple progression from particular/individual instances to broader generalizations as its conclusions move from general statements to individual instances/cases.

As such, since 2000 significant academic research was generated to qualify, quantify, and correct flawed reasoning processes and methodologies that underlie criminal profiling (Snook, Cullen, Bennell, Taylor, & Gendreau, 2008), as researchers and practitioners such
as Canter sought and improved methodologies and processes to assist in solving criminal investigations and obtaining convictions. As mentioned before, the alternative to a clinical assessment approach in profiling is actuarial-based methods where statistics of past crimes are utilized through extensive databases and computational abilities to draw probabilistic conclusions about the characteristics and personality of the likely suspect in a deductive manner. There are advantages and disadvantages to both clinical and actuarial approaches that are summarized in Table 7.3 below. If a clinical approach is not adequately structured, theoretically supported, and framed on clinical knowledge and expertise, the conclusions may be affected by rater bias, prejudice, or subjective reasoning.

On the other hand, actuarial methods are dependent on large amounts of accurate data, and results are negatively affected by a lack of data integrity, exceptions, or behavioral inconsistencies. The main advantage of clinical assessments is that the individual-environment interaction is more effectively considered, it is more interpretive, adaptive, and flexible to include as many factors as necessary, and results may be extended to treatment and risk management. Furthermore, actuarial evaluations are objective in nature, does not rely on rater input and interpretations, and instead rely on statistics to determine likely characteristics of a subject, which focus more on physical and ability attributes compared to the behavioral conclusions of clinical methods.
Therefore, clinically-based profiling methods are more comprehensive, require higher levels of psychological insight and knowledge, is adaptable, and provides support throughout the criminal justice process. It is also less prone to errors as it relies much less on statistical probabilities than is the case with actuarial approaches to profiling. As it applies inductive compared to deductive reasoning, it is better grounded in scientific theory that can be tested and systematically improved.

**Table 7.3: Actuarial Versus Clinical Profiling Methods**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Actuarial</th>
<th>Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to measure accuracy</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Inter-rater reliability</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Adaptive, not one-size-fits-all</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Substantial depth of behavioral analysis</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Quantitative analysis instead of qualitative</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Prospective view instead of retrospective</td>
<td>N</td>
<td>Y</td>
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**CRITICISMS OF CRIMINAL PROFILING**
Despite its wide use and recent theoretical and methodological improvements, the scientific basis of profiling remains widely questioned, in particular the FBI approach that continues to be favored in the U.S. According to Devery (2010), the practice of criminal profiling is “a lofty edifice built on a flimsy foundation” (p. 403). The majority of recent literature sources share the view that criminal profiling continues to lack sufficient scientific foundation to ensure meaningful practice. Since its inaugural years from the mid-1970s at the FBI, the practice of criminal profiling has faced fierce criticism from researchers, scientists, and academic professionals. It has been labeled a pseudoscience (Lilienfield & Landfield, 2008; Snook et al., 2008), “smoke and mirrors” (Snook et al., 2008, p. 1257), self-validating and glorified (George, 2008), and the resulting lack of validity compromises usefulness in investigative and courtroom settings (Flagel & Gendreau, 2008; Bosco, Zappalà, & Santilla, 2010).

Despite the intense condemnation, criminal profiling continues to have a widespread use by law enforcement agencies, and while this utilitarian argument does not necessarily prove its accuracy or value in investigations, research efforts have increased in an attempt to establish credible scientific methods in support of field use. Yet more work seems to be required to establish a scientific basis that would withstand legal standards of evidence. However, success with psychoanalytic methods in criminal field work has been illustrated in Australia, England, Germany, South Africa, and America
These efforts are important as a failure to improve the scientific credibility of criminal profiling can cause miscarriages of justice, investigative failures and delays, and unproductive resource deployment (Devery, 2010). It must also be kept in mind that criminal profiling requires extensive criminal behavior and case knowledge, and advanced reasoning skills to reconstruct criminal behavior with complex data (Dern, Dern, Horn, & Horn, 2009).

According to Woodhams and Toye (2007), the three hypotheses that define the foundation of profiling are “offender behavioral consistency, offender behavioral distinctiveness, and the homology (direct relationship) between offender characteristic and behavior” (p. 59). These aspects continue to present a problem in research and practice, for the following reasons:

- It is difficult to measure accuracy and success rates of profiles.
- Offender samples are limited.
- Generalizability of results are difficult to establish.
- There is a lack of control samples.
- There is a general absence of independent research.
- The peer review process is inadequate.
- It is difficult to determine whether results can be replicated or falsified.
- “Field” profilers are often not willing to divulge information and subject to scrutiny.
There is too much reliance on weak standards of proof and anecdotal evidence.
False positive rates are high (e.g. wrong suspect is identified based on a profile).
False negative rates have also been problematic (e.g. the real offender is excluded as a suspect based on a profile).
There is a lack of standardized and accredited education and training.
Protocols and methodologies are not adequately structured or uniform.
There is a proneness to self-serving, hindsight, and confirmation bias.
The analogy between crime scene actions and offender characteristics is unproven.
The across-time consistency of behavior is not established.
Transient effects of situational and environmental factors on offender behavior are not determined.
Post hoc ergo propter hoc is a logical fallacy in profiling that infers that since one event followed another, it was also caused by the previous event.

Inaccurate profiles can bear grim consequences in misleading an investigation by hindering timely apprehension or wrongful conviction. Ignoring potential miscarriages of justice is an ethical travesty that not only disregards individual civil rights and cultural differences, but allows bias and reasoning flaws to taint
the potential of profiling to contribute positively to criminal investigations. The potentially harmful social consequences require that a standardized and validated methodology be put in place that is culturally and diversity sensitive to affect social change and responsibility in police operations.

However, the science of criminal profiling has improved vastly in the past decade as there are much more cross-fertilization between different disciplines in practice (e.g. law enforcement, forensic psychologists, crime analysts, scientists, etc.) and research (e.g. academia, theorists), including to increase accuracy and utility in a scientific way by close cooperation between practice and research. Many tools and techniques such as geographical profiling and linkage analysis have evolved to enhance criminal profiling and extend its range of applications. Profiling can also be purposefully applied in “non-traditional” fields and activities, including but not limited to counterterrorism, interviewing and interrogation, risk analysis and management for sentencing, parole, and internment decisions, and expert testimony in criminal trials.

**CHAPTER SEVEN KEY CONCEPTS**

1. Criminal profiling was first defined and developed by the FBI in the 1970s.

2. The FBI approach is primarily actuarial and deductive.
3. A distinction is made between organized and disorganized offenders to inform the conventional profiling process.

4. Inaccuracies and failures of the traditional approach prompted researchers to develop a scientific-based profiling method, led by David Canter and called Investigative Psychology.

5. The Investigative Psychology approach is clinical and inductive.

6. Newer methodologies are less biased, subjective, and generalized, but more systematic and grounded in scientific theory and empirical research.

REFERENCES


The objectives of Chapter 8 are the following:

1. To illustrate the practical application of criminal profiling by way of case studies.

2. To highlight the aspects of an organized serial killer by way of the Ted Bundy case.

3. To give examples of delusional and disorganized homicide behavior in the Sacramento Vampire case.

4. To illustrate with the BTK Killer case that life events can cause lengthy periods of inactivity in serial killings; and how a serial killer may feel the urge to contact the media or authorities.

5. To demonstrate the use of geographical profiling in the Clifford Olson case.

INTRODUCTION TO CASE STUDIES

By now it is expected that readers and students will have a good introductory understanding of the objective and techniques of criminal profiling and how the process manages successfully to peek into the minds of serial offenders. This chapter is devoted to four case studies,
selected to illustrate various aspects that were discussed in earlier chapters. The first, a case study of serial killer Ted Bundy, exposes the behavior and methods of a (mostly) organized offender, while the second case study, that of the “Vampire of Sacramento”, Richard Trenton Chase, gives an example of a disorganized offender. The third case examines the life and behavior of Dennis Rader, the “BTK Killer”, which in many cases highlight the prototypical characteristics of a serial killer, including the importance of considering the timeline of crimes. In the last case, the application of geographical profiling is explored in the case of Clifford Robert Olson, a Canadian serial killer. Geographic profiling is an investigative methodology that uses the locations of a connected series of crimes to determine the most probable area that an offender lives in or work.

**CASE STUDY: TED BUNDY**

Theodore Robert “Ted” Bundy was an American serial killer, kidnapper, rapist, and necrophile who assaulted and murdered 30 women or more. Bundy was an attractive, well-educated, and intelligent (his IQ was reportedly 136) young man, and was considered a psychopath.

**Bundy’s Early Years**

Ted Bundy was born in November 1946 at a facility for young unwed mothers. The identity of Bundy’s biological father was unknown to him; he grew up thinking his grandparents were actually his parents. To hide the
shame of his unwed mother, he was made to believe that his mother was actually his older sister. Bundy achieved high grades in school and was known as well-mannered and well dressed. When Bundy went to university for degrees in psychology and eventually law, he fell in love for the first time. However, this relationship ended badly, and he was devastated. Soon after this break up, he discovered his parents were actually his grandparents.

**The Washington State Murders**

Bundy's first confirmed assault was on the night of January 4, 1974. He entered the basement bedroom of an 18-year-old female dancer and student at the University of Washington. He sexually assaulted the girl, then he beat her with a metal rod from her bed frame. The girl survived and but suffered permanent brain damage. Later that month, Bundy killed another University of Washington student and dumped her body in a separate location. His next attack was in March 1974 at Evergreen State College where he kidnapped and murdered a 19-year-old female student. A month later, a female student from Central Washington State College disappeared. He lured her by wearing a cast on his arm and asking her to help him carry some books to his car, a Volkswagen Beetle.

His next victim was a female student at Oregon State University who was last seen in May 1974. In June 1974, he killed two young female university students, one after she was seen leaving a tavern late one night and the other while she was walking at night from her boyfriend’s
dorm to her sorority house on the University of Washington campus. Witnesses later reported that a man with a leg cast was seen asking a woman to help him carry a large briefcase to his car, a Volkswagen Beetle.

In July 1974, Bundy changed the location and time of day he hunted for his victims from university campuses at night to parks during the day. Twice during the same day, he abducted and murdered two young females from Lake Sammamish State Park in Washington. Numerous witnesses told the police a handsome young man named Ted with a Canadian accent asked them to help him unload a sailboat from his Volkswagen Beetle because one of his arms was in a sling. Several witnesses actually saw one of the victims walk away from the beach with Ted. All eyewitness accounts led to police distributing a sketch and description of Ted Bundy to newspapers and television stations. This eventually led to Bundy's girlfriend, one of his psychology professors and a former co-worker and now famous crime novelist Ann Rule, to report him as a possible suspect. However, police did not pay much attention to this report because he was a clean-cut law student.

**The Utah Murders**

In the fall of 1974, Ted Bundy moved from Washington to attend law school in Salt Lake City, Utah, where he continued to kill young females. However, he changed his modus operandi (MO). He decided to target young females that were not university students. He lured his victims by claiming to be a police officer conducting an
investigation. He abducted and killed three young females during October 1974. However, when he tried this technique in November 1974, it failed twice. On the first occasion, a young female got into Bundy’s car after he told her she needed to come with him to the police station. After she was in the car, he handcuffed her. However, when he tried to hit her with a crowbar, she managed jumped from the car while he was driving. This failure did not seem to deter Bundy because later that day he hunted for another victim. At a Utah high school, he tried to convince a teacher and a student to come to his ‘police car’, but they both refused. Instead, he abducted and killed a 17-year-old female student who was leaving the school to pick up her younger brother.

The Colorado and Idaho Murders

Likely because he had been seen by numerous eye witnesses in Utah, in 1975 Bundy decided to target females in the nearby states of Colorado and Idaho. From January 1975 to May 1975, he abducted and killed four separate females by pretending to have a leg injury and asking for help to his car. One victim was taken just outside her hotel while on a holiday; two victims were abducted in the parking lot of a ski hill; the fourth was a junior high school student who disappeared while walking home from school.

Arrest and Two Escapes

While driving his car in August 1975 in Utah, Bundy was arrested for failing to stop for a police officer. When
police searched his Volkswagen Beetle, they found what appeared to be burglary tools: a ski mask, a crowbar, handcuffs, trash bags, and an ice pick. Detectives soon linked his car to the kidnapping in which the girl escaped and to the other Utah murders. In March 1976 following a week-long trial, Bundy was convicted of kidnapping and sentenced to 15 years in prison. In 1977 while awaiting for his trial for the murder of one of the Utah victims, Bundy escaped from the law library of the court building. He was caught after only six days, but seven months later, he escaped again from jail.

**Florida Rampage Leads to Final Arrest**

After his second escape, Bundy took a train, then a stolen car, and finally a bus to Florida where he began another murderous rampage. In January 1978, in a 30-minute period late one night, he brutally attacked four female students at a sorority house on the Florida State University campus. Two of the victims died after the attack; the other two were severely injured. Bundy then broke into another home a few blocks away and severely injured another female student while she slept. In February 1978, he killed a 12-year-old girl in south Florida. He was caught less than a week later in a stolen Volkswagen Beetle. He eventually confessed to murdering 35 young women, but many believe the number to be much higher. Ted Bundy was executed on January 24, 1989, after he lost several court appeals.

**Bundy’s Modus Operandi**
To gain a better understanding of serial murderers and organized offenders, Ted Bundy was interviewed by criminal profilers while he was incarcerated. Ted Bundy’s modus operandi was both fascinating and frightening. It provided experts with a better understanding of the deviant mindset of organized serial murderers.

Ted Bundy’s MO included the following:

- All Bundy’s victims were white females with straight hair between the ages of 15 and 25.
- Most were from middle class families; the majority were college students.
- Bundy often drank alcohol prior to finding a victim.
- After luring a victim to his car, Bundy would hit her on the head with a crowbar. (Every recovered skull except one showed signs of blunt force trauma.)
- Every recovered body, except for one, had been strangled.
- At least half of his victims were decapitated with a hacksaw. (He kept some of the severed heads in his home for some time before disposing of them.)
- Some of the victim’s skulls were found with front teeth broken out.
Many of the victims were dumped a great distance from where they disappeared.

Bundy confessed to visiting some of his victims' bodies numerous times in the secluded locations where he had dumped them. (He said he would lie with them for hours, applying makeup to their corpses, and performing necrophilia.)

Note how Bundy often used elaborate ruse to approach and get close to his victims without arousing their suspicion. He apparently behaved in a manner consistent with reactive attachment disorder, which is marked by the difficulty to form lasting relationships and a lack of ability to be genuinely affectionate. Necrophilic behavior is associated with attachment problems. Also note how Bundy became much more disorganized in his last crimes, which can be attributed to increased stress as law enforcement closed in on him.

CASE STUDY: RICHARD TRENTON CHASE, THE “VAMPIRE OF SACRAMENTO”

Richard Trenton Chase was an American schizophrenic serial killer who killed six people in a span of a month in Sacramento, California. He was nicknamed “The Vampire of Sacramento” because he drank his victims’ blood and cannibalized their remains.

Chase’s Early Years
Richard Trenton Chase was born in May 1950 into a middle class family in California, U.S. He had a very strict father with whom he was never close and an abusive mother. At age 10, Chase had trouble with bedwetting, he liked playing with fire, and he began torturing and killing cats. In his early teens, he began using drugs and alcohol heavily. He dated some girls in high school, but he stopped to avoid embarrassment when he discovered he had an erectile dysfunction.

A Fragile Mental State

After high school and into his twenties, Chase had trouble finding and maintaining employment as well as a place to live because of his strange behavior and because he looked so unkempt. He was treated various times in psychiatric hospitals and was prescribed anti-psychosis medication that he did not always take. The strange behaviors that lead to this treatment included going into hospital emergency rooms and stating that his pulmonary artery had been stolen or killing dogs and rabbits, then drinking their blood and eating some of their raw organs. He said he did this to maintain his own blood levels, which he felt would disappear if he did not continually stock up. In addition, Chase often held oranges on his head, believing the Vitamin C would absorb into his brain through osmosis.

Committed to a Mental Institution

In 1975, Chase was sent to a mental institution when he contracted blood poisoning after injecting rabbit’s blood
into his veins. He escaped from the facility and went home to his mother. He was soon apprehended and sent to an institution for the criminally insane. In this facility, he killed some birds while outside and attempted to drink their blood.

After undergoing months of what his physicians thought were successful treatments with various anti-psychotic drugs, in 1976 Chase was released into the care of his mother. Mrs. Chase felt Richard did not need to be on the antipsychotic medication he was prescribed; over time, she stopped giving it to him.

**The First Two Victims**

In December 1977, Richard Chase shot his first victim, Ambrose Griffin, in a drive-by shooting outside her home. Just a few blocks away from her, he killed his second victim, Teresa Wallin, in January 1978. Blood was smeared all around Wallin’s house after Chase shot her, sexually assaulted her, and removed some of her internal organs.

**Chase’s Last Victims**

One mile away from the Wallin house on January 27, 1978, Chase entered the home of 38-year-old Evelyn Miroth. Once inside, he met Miroth’s neighbor, Don Meredith, whom he shot. Then, he stole Meredith’s wallet and car keys. Soon afterwards, he shot Evelyn Miroth, her 6-year-old son Jason, and Miroth’s 22-month-old nephew, David. He sexually assaulted Miroth and consumed some of her blood. During this carnage, Chase
was startled by a knock at the door by a six-year-old girl, a friend of the young Jason Miroth. The frightened girl alerted a neighbor who called police, but Chase fled the scene by stealing Don Meredith’s car taking the 22-month-old’s body with him. Chase returned to his home with the body where he drank some of the dead toddler’s blood, ate some of his internal organs, and dumped the body at a nearby church.

**Chase’s Arrest and Trial**

Upon entering the crime scene, police discovered that Chase had left complete fingerprints, handprints, and shoe imprints in the blood that he had smeared around the home. These prints, in addition to a FBI criminal profile, led to the apprehension of Richard Trenton Chase in February 1978. In January 1979, the four-month trial of Chase began. He was found guilty of six counts of first-degree murder. He was sentenced to death, but he died of a drug overdose in prison before his execution.

**Chase’s Delusional Motive**

When Richard Trenton Chase was asked why he would drink the blood and eat the organs from some of his victims, he said that he needed to do this to prevent Nazis from turning his blood into powder. He believed that Nazis had planted poison beneath his soap dish.

In the case of Richard Chase, note his long-term psychiatric problems and elaborate delusions, which are found in some disorganized offenders. Despite evidence of insanity, a jury found him guilty. His lifestyle was also
as disorganized, and all his relationships were strained. His psychiatric treatment apparently repeatedly failed as he was not compliant with medication. He reportedly had a slightly below average IQ of 95. Generally speaking (based on the average of known information), the IQ of organized serial killers are higher than their disorganized counterparts.

**CASE STUDY: DENNIS LYNN RADER, THE “BTK STRANGLER”**

Dennis Lynn Rader murdered at least 10 people in and near the city of Wichita, Kansas, between 1974 and 1991. He became known as the BTK Strangler, which stood for ‘Bind, Torture, and Kill’, a name that he had originally passed to the media and police through a wide variety of written correspondence.

**First Killings: 1970s**

Rader’s first victims were four members of one family (Joseph Otero, his wife, and their two children) who were murdered in their home in January 1974. In April 1974, Rader struck again, using his preferred method of attack by gaining entry to the victim’s home. He tied Kathryn Bright and her brother Kevin, and then strangled her to death. Rader then shot Kathryn Bright’s brother several times as they fought, but Kevin Bright survived the attack. The police were unable to locate the killer from the description he provided.
In 1977, in a period of nine months, Rader murdered Shirley Vian and Nancy Fox in their own homes. He used the same method of binding and torturing to kill these two victims.

Possibly, he had other intended victims, but the murders stopped for a time. Then, two years later in 1979, Anna Williams narrowly escaped death when she returned home from work much later than expected. Rader had broken into her home, but apparently he gave up on her return that evening. He later sent an angry note to her stating "...be glad you weren't here, because I was." He included one of her scarves with the letter.

**Letters to the Police and Media**

Rader seemed to derive perverse pleasure from sending taunting letters to both police and various news outlets. He sent notes and letters from 1974 to 1979. For example, in October 1974, a letter describing in detail the murder of the Otero family had been left in an engineering book in the Wichita Public Library. In early 1978, he sent a letter to a Wichita TV station in which he claimed responsibility for the murders he had committed. This letter identified the BTK Strangler name, announcing that a serial killer was loose in Wichita. A poem was also enclosed, written as a form of macabre tribute to the murder of Nancy Fox. However, nothing was heard from BTK for the next several years. During that time, local police created a Task Force and spent thousands of hours searching for the identity of the BTK Strangler. They used various principles from science.
and followed up on the realization that all murders had occurred within a radius of approximately 8 km.

By 1988, the trail had gone cold. However, police received a letter from someone claiming to be the BTK Strangler. The author referred to a recent murder but denied responsibility while noting that it had been performed admirably.

**Criminal Profiling Involvement**

In 1997, Robert Ressler, a former FBI agent, helped outline a profile of the BTK Strangler. Ressler thought the man may have been a graduate student or a professor in the criminal justice field at the local university, was most likely in his mid-to-late-20s at the time of the killings, and was an avid reader of books and newspaper stories concerning serial murders. Additionally, because his pattern of killings had not been seen in Wichita since the '70s, it was assumed that he had likely left the area or had died.

In August 2000, Dr. Deborah Schurman-Kauflin, President of the Violent Crimes Institute, created a partial profile of the killer based on limited information. Among her insights was a chilling statement about the mindset of BTK Strangler:

This is not a person who would stop killing on his own. There are only three reasons he would stop: death, prison, or he is too disabled or sick to kill. This is a compulsive psychopath who enjoys killing and will not give it up.
Schurman-Kauflin’s profile of BTK was updated in 2005 (just prior to the BTK Strangler’s arrest) to provide a more detailed description of his character traits and behaviors:

- Divorced white male who now would be in his 50's
- Sad, lonely, bored
- Has a normal appearance and fits in well with the people who live in Wichita
- Drives a non-descript pickup truck or car, most likely American-made
- Was and is strong and enjoys using his hands
- Can be charming and disarming when he chooses
- Prefers his own company because he feels superior to everyone
- Lives in a lower to middle-class area
- Not known as a criminal
- Sane, but a psychopath
- Has a strong dislike of women and views them with disdain
- Enjoys playing puppet-master and would prefer killing and manipulating others to almost anything
- A consummate liar and manipulator
- Enjoys being discussed in the media and takes delight in people guessing about him
- Has the world at the end of his string, but his problem is that to be truly heard, he has to be caught
Letters and Packages from the BTK Strangler

In March 2004, BTK Strangler began a series of communications that ultimately led to his arrest in February 2005. The Wichita Eagle newspaper received a letter written by a person believed to be BTK Strangler who claimed responsibility for the murder of Vicki Wegerle in September 1986. This murder had not been attributed previously to BTK Strangler, but several photographs of the crime scene and a photocopy of the driver’s license of Vicki Wegerle’s were included with the letter, indicating that whoever had sent it had intimate knowledge of the crime. Subsequent letters, notes, and packages were sent throughout 2004 while police encouraged BTK to continue to communicate, hoping that he would make a mistake to identify himself.

In December 2004, Wichita police received another package from the BTK Strangler; it contained the driver's license of Nancy Fox. It had been stolen from her residence at the time of her murder in 1977. In February 2005, postcards were received by a local TV station and were followed by further writings related to the 1974 murders of a certain member of the Otero family.

Then the BTK Strangler made an error. In February of 2005, he sent a padded envelope containing a computer disc to a TV station in Wichita. On this disc, police found metadata embedded in a Microsoft Word document that identified the Christ Lutheran Church and that showed the document was last modified by "Dennis".
Investigators then discovered that the president of the Christ Lutheran Church council was Dennis Rader.

**Arrest and Confession**

Police immediately began surveillance of Rader and obtained a warrant for the medical records of Rader's daughter. Subsequently, a tissue sample was obtained from her and tested for DNA. It provided a familial match with semen found at an earlier BTK Strangler crime scene. This evidence, combined with other pieces of information gathered prior to and during the surveillance, gave police the grounds to arrest Rader in February 2005. He was taken into custody without incident. He talked to the police for several hours, confessing almost immediately. His confession and subsequent interviews with police filled almost a dozen DVDs.

During his lengthy interviews with police, Rader appeared to detach himself from his victims, describing them as his "projects", discussing in detail how he had "put them down". Rader also described the contents of his "hit kit": a briefcase or bowling bag containing handguns, tape, rope, and handcuffs. He also carried extra clothing that he could change into after committing a murder.

Rader also provided insight into how he chose his victims. He would first wander the city until he found potential victims; he would then stalk them for some time. Then, he would break into the victim’s home when
no one was home, cut the phone line, and hide until his victim came home. Rader then bound, tortured, and killed his victims. Usually he strangled them until they lost consciousness, but he would revive them just to strangle them again. He would repeat the pattern, becoming sexually aroused at the sight of their struggles. Finally, Rader would strangle them to death and ejaculate into an article of their clothing, usually underwear.

All victims except one lived in and around central Wichita. Rader lived on the same street as one of his victims.

**Conclusion**

Rader pleaded guilty in 2005, giving a graphic account of his crimes in court. By this time, Rader had openly admitted to two other murders that the BTK Strangler had not originally been suspected of committing: Marine Hedge in 1985 and Dolores David in 1991.

In August of 2005, Rader was sentenced to serve 10 consecutive life sentences (one life sentence per victim) without possibility of parole for 175 years. The police investigation concluded with the statement that Rader was not responsible for any other murders.

Although criminal profiling played a minor role in the search for the BTK Strangler, this story demonstrates the need for an objective, balanced approach to serial crime investigation based on the ease with which a serial killer can blend into conventional society.
What is especially interesting about the Dennis Rader case is the fact that the seven known murder events took place over a span of 16 years, which yielded seven victims in the first 3 years, and only three between 1977 and 1991. This illustrates a very important consideration for a criminal profiler that is evident in his timeline: The serial killer’s life events influences his ability and motivation to kill. Note how the birth of his daughter, graduation, and apparent employment stability from 1978 seems to cause a gap in criminal activity of nearly ten years before the next murder. Also, after 1991, Rader apparently did not commit another murder until he felt compelled to contact the media in response to a 30-year anniversary of the case. This was the start of his downfall. A detailed timeline of the BTK killer’s activities is available at the following link: http://bit.ly/1Wi8E7a.

CASE STUDY: CLIFFORD ROBERT OLSON, GEOGRAPHIC PROFILING

Clifford Robert Olson, Jr. was a convicted Canadian serial killer who confessed to murdering 11 people between the ages of 9 and 18 years in the early 1980s. In his dissertation, Dr. Kim Rossmo used the Clifford Olson serial homicide case as an example to illustrate his theory of geographic profiling.

Olson’s Early Years

Clifford Robert Olson was born on January 1, 1940, in Vancouver, British Columbia. Despite being raised in a
reportedly stable home with no signs of abuse, at a young age he showed signs of delinquency. Olson was known as a bully and a show-off who loved to be the center of attention. He skipped classes by Grade 4 and failed several grades in school; and it was rumored he had tortured and killed animals. Olson was a loner who had no close friends and who was frequently in trouble for compulsive talking. He skipped school frequently and was first arrested for theft at age 13. Olson left school at age 16. From then until he was 40 years old, he was convicted of 83 criminal offences. As an adult, Olson lived outside of prison for only four years by the time he was 40 years old. In terms of various lengths, he had spent more than 22 years in prison.

The Murders

Olson owned a construction company and hired young boys and girls by promising them money. Some of these youngsters did legitimately work for Olson; however, many became his victims. Often, he picked victims in the middle of the day offering them a ride or a job. Then, he would either sexually assault and/or kill them.

Olson murdered his first victim in November 1980. He abducted a 12-year-old girl in Surrey, British Columbia, strangled her with a belt, and stabbed her repeatedly. The body was found on Christmas Day. In April 1981, Olson killed a 13-year-old girl, but her body was not found until five months later. Next, Olson abducted a 16-year-old boy, smashing the boy’s head with a hammer and tossing him into a ditch.
In May 1981, near the time Olson married and his wife gave birth to his only child, he was accused of molesting a five-year-old neighbor girl. However, he was never formally charged due to lack of evidence. In May, just four days after his wedding, Olson abducted and murdered a 16-year-old girl; the following month, he killed a 13-year-old girl.

In July 1981, Olson killed seven youngsters of various ages—the youngest a 9-year-old and the oldest an 18-year-old German tourist. Unlike his first three female victims, two of the six victims were boys. He sexually assaulted all his victims, but he killed them in various ways. Four of the victims he strangled to death; three of the victims he bludgeoned to death. Olson dumped most of his victim’s bodies in remote locations, but kept evidence from each murder as a souvenir.

After Clifford Olson killed 14-year-old, Judy Kozma, 14, he took her address book, called some of her friends and threatened them with taunts such as "You're next."

Within nine months, Olson had killed two children and nine youths. Initially, the cases were not linked by authorities because the victims were of both sexes, of varying ages, and murdered in various ways. Also, only three bodies had been found at that time; the other seven were tentatively considered probable runaways. However, in late 1981, when police realized that a serial killer was responsible for the deaths, a major investigation was initiated.
Prime Suspect and Surveillance

Clifford Robert Olson became a prime suspect early in the investigation because he lived in the Surrey area and he had a lengthy criminal record. Police brought Olson in for questioning, but they had insufficient evidence to hold him. However, because their suspicions about him were high, he was put under surveillance.

Olson was not easy to follow. He would often stop in the middle of a street, make sudden U-turns, or go down one-way alleys, stop, and reverse. Olson also drove continually in various rental cars. In a 3-month period, he travelled more than 20 000 kilometers in 14 different rental cars.

Attempted Abduction Leads to Arrest

In August 1981, Olson was arrested for attempting to abduct two young female hitchhikers. Olson picked up the girls near Nanaimo, BC, and drove them up a dirt-logging road. Two RCMP surveillance cars followed him and blocked the entrance to the road. Two officers on foot then followed the car until it stopped. When Olson began yelling at one of the girls, police moved in and arrested Olson.

Olson’s Controversial Deal

When police investigators began questioning Olson about the string of unsolved murders, he soon offered them a deal. He would confess to all 11 murders and show them where the bodies were if his wife and young
son were given $10 000 for each victim. At first, this deal infuriated investigators. However, because they had little evidence to tie Olson to the murders and because the families of the missing children were desperate, the deal was eventually made.

In January 1982, Clifford Robert Olson pleaded guilty to 11 counts of murder and took police to each of the bodies. Olson was given 11 concurrent life sentences, and his wife and son were given $100 000. Clifford Olson wanted $10 000 given to his family for the location of each of the 11 victims. Police agreed to a payout of $100 000, and in a strange gesture of goodwill, Olson gave them the location of another of the victims as a "freebie".

Create Your Own Geographical Profile

Imagine that you are part of a Police Task Force that is responsible for investigating a series of armed robberies committed within the northeast quadrant of a large Canadian city over the past four months. To date, 14 robberies have occurred, and everyone is concerned that the suspect is becoming increasingly violent. You and your team must identify this person as quickly as possible, but resources are limited and you have very little time to follow up the hundreds of tips received from the public. Therefore, you decide to create a geographic profile map to help shorten your long list of suspects.

Fourteen sets of coordinates have been provided to indicate the locations of the robberies. Plot the following
crime location coordinates on the graph paper provided to create a mock geographical profile map. You also have a list of three possible suspects, but only one surveillance team is currently available. Therefore, you need to use the geographic profile to shorten your list of suspects so that you can utilize your resources as effectively as possible.

After you have plotted all fourteen coordinates, determine which of the three suspects lives and works closest to the ‘hotspots’ identified by the geographic profile.

<table>
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<tr>
<th>X-axis (km East)</th>
<th>Y-axis (km North)</th>
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Which suspect will you ask your surveillance team to follow?

If one plots the coordinates of all 14 crime locations given on the map, taking into account the “comfort” zone around the suspects’ homes and places of work, and their daily commute between the two—all other things being equal, most of the events occurred in the “hot” zone.
surrounding the home and workplace of suspect number 1. It appears as if the buffer zone (which he will avoid as it is too close to either places and increases the likelihood of his identification) is about 2 kilometers in diameter with his home and work at the center of each circular area.

Based on the geographic profile I would have strongly suggested that the investigations focused on suspect number 1.

Here we have presented examples that illustrated most of the concepts and techniques that were discussed throughout the series of chapters as they pertain to the practical application of criminal profiling in actual cases. Potential pitfalls and important considerations became more apparent as they influenced real cases. However, the scope of these materials are unfortunately very limited, although it did give a good overview of what is expected of a criminal profiler. Basically, it requires a very good knowledge of the workings of a criminal mind and psyche, an appreciation that human behavior can be very complex and unpredictable, and a passion to systematically delve into crime scene evidence that is often disturbing and traumatic, with an open and curious mind, and passion to assist in obtaining justice for the victims and their families and prevent further crimes.

CHAPTER EIGHT KEY CONCEPTS
1. An organized serial killer such as Ted Bundy is likely to use skills to lure or deceive his victims, and conceal/manipulate the crime scene.

2. A disorganized serial killer such as the “Sacramento Vampire” is likely to have uncontrollable anger outbursts (e.g. intermittent explosive disorder), a form of psychosis, and/or substance abuse, is not criminally sophisticated, and leaves evidence behind.

3. A serial killer’s life events (e.g. work, home, social) influences his criminal activity or desistance, together with other factors such as access to potential victims, weapons, etc. Situations in his personal life affects his need/desire for relief.

4. Geographical profiling is a useful tool to analyze all crime scene locations in order to limit or identify potential suspects.

5. Most serial murders with psychological motives are associated with a persistent and vivid fantasy (or in some cases delusional fear) that generates an urge to act.
ABOUT THE AUTHOR

JOAN SWART is a Forensic Psychologist, who completed her doctorate at the Eisner Institute for Professional Studies based in Encino, CA. Her activities include consulting, research, writing, and lecturing, mainly in the areas of criminal behavior and cognitive-behavioral therapy. She lives in the beautiful southern town of Paarl, South Africa with her two rescue pugs. Her personal endeavor is to understand humankind better and spread this knowledge to improve its condition one person at a time.

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2. The Perfect Murder? 20 Insanity Defenses that Worked

3. Murder on the Mind: 20 Weird Mental Disorders that Led to Murder
4. **Deviant Fun: 20 Unusual Sexual Obsessions**

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