In an episode of a popular cable network show, police called in a self-described profiler to aid them in the investigation of a series of rapes that had stymied them for several months. The profiler rapidly reviewed reports of the crime scenes, looked at the evidence that had been left behind, and read reports of interviews with the victims. Within a few hours, the profiler was able to pinpoint where the perpetrator likely lived, how old he likely was, and when he was likely to strike again. Police then found and arrested a suspect, who was subsequently charged with four rapes and convicted.

This may make for good media entertainment, but it is unrealistic. Whether we use the term profiling, behavioral analysis, psychological assistance to police, or any variants of these terms, the process by which forensic psychologists participate in criminal investigation is complex, and it is often controversial.

The investigation of crime offers a multitude of both research and practical activities for the forensic psychologist. Some of these activities relate directly to identifying the perpetrator, such as in the illustration above, or helping police understand the behavioral aspects associated with the crime, such as how victims are targeted. Other activities relate to the methods police use once a suspect or suspects have been apprehended. In the previous chapter, we focused on services psychologists and other mental health professionals offer to the police agency itself, such as training, candidate screening, or stress management. In this chapter, we focus on the various methods law enforcement employs to solve crimes where psychology can make important contributions. A rapidly growing psychological contribution to law enforcement is the scientific area of study called investigative psychology. It is an umbrella term that can apply to all of the activities covered in this chapter.

INVESTIGATIVE PSYCHOLOGY

The term investigative psychology was minted by Professor David Canter, the director of the International Centre for Investigative Psychology at the University of Liverpool. Canter and his colleagues believed that there was “a wealth of psychological literature that can be drawn upon...
to aid in the contribution to the psychology of investigations” (Alison & Canter, 1999, p. 9). Basically, investigative psychology (IP) refers to a new scientific approach designed to improve our understanding of criminal behavior and the investigative process (Taylor, Snook, Bennell, & Porter, 2015).

To date, the majority of IP studies fall into three broad categories: (1) the nature of offender behavior, (2) the social psychology of group crime and terrorism, and (3) the cognitive psychology of investigative decision making by law enforcement investigators (Taylor et al., 2015). In this chapter, we will focus on two of these three—the nature of offender behavior, especially as examined through profiling, and the investigative process used by law enforcement. It should be emphasized at the outset that IP includes much more than profiling serial killers and rapists. Rather, IP “provides a framework for the integration of many aspects of psychology into all areas of police and other investigation, covering all forms of crime that may be examined by the police as well as areas of activity that require investigation that may not always be considered by police investigators, such as insurance fraud, malicious fire setting, tax evasion, or customs and excise violations and even terrorism” (Canter & Youngs, 2009).

From a psychological perspective, three fundamental questions characterize all criminal investigations (Canter & Alison, 2000), assuming that an individual has not been caught in the act of committing a crime. The questions are as follows: (1) What are the important behavioral features associated with the crime that may help identify and successfully prosecute the perpetrator? (2) What inferences can be made about the characteristics of the offender that may help identify him or her? (3) Are there any other crimes that are likely to have been committed by the same person? These questions are central to the psychology of investigations in their early stages, when the perpetrator of a crime is unknown. Answering these questions may or may not involve the task of profiling, which is so fascinating to the public, the media, and many students of forensic psychology. Profiling in its various forms also has gained popularity in law enforcement circles since first used by the Federal Bureau of Investigation in 1971 (Pinizzotto & Finkel, 1990). Canter himself disavows the term offender profiling, however, both because it suggests that psychologists possess abilities beyond what is realistic and because it is not broad enough to encompass the realm of investigative psychology. (See Perspective 3.1 in which Professor Canter writes about his life’s work.)

Today, virtually every form of entertainment media offers its version of a profiling show, and profilers make regular appearances in the news, particularly when serious crimes occur. Despite the media attention and popular TV and movie depictions of highly successful and probing profilers employing sophisticated techniques to identify the offender, reality is far from that picture. If the number of actual success stories in profiling were compared to the total number of misses or failures, the ratio of hits to misses might be close to chance. Over the past decade, however, some techniques associated with profiling have become more scientifically based, as we will note shortly. In addition, although there are few limitations on who can call themselves profilers, training in behavioral analysis—a term often preferred to profiling—has become more extensive and rigorous. Therefore, although many psychologists and other scholars are skeptical of the profiling endeavor, it should not be rejected outright as having no value.

We begin the chapter by focusing on profiling and summarize some of the research on its validity. Is profiling useful? Successful? How exactly is it done? Are some profiling techniques more acceptable than others, and how does one distinguish a “good profiler” from one who might be seeking media attention? Later in the chapter, we discuss other topics that are equally relevant (and in many ways more relevant) to the psychology of investigations—such as the interviewing and interrogation of witnesses and suspects, the detection of deception, and evaluating the accuracy of eyewitness testimony. Psychological research in these areas applies psychological concepts to principles of criminal investigation. As we will see, properly applied, findings from research in these areas can help police solve crimes as well as discourage them from focusing their attention on innocent people.
Sometimes an event occurs in your professional career which, at the time, does not seem very significant but later turns out to have changed who you are and what you do. That happened to me in 1986. Having had no previous contact with police investigations, almost by accident I was asked if I could help a major police enquiry into a series of rapes and murders around London. As it turned out, the police said my subsequent report was extremely helpful. This opened doors to many other investigations and, crucially, enabled me to gain access to data on which to base systematic research. It was out of this research that I realised a broad based discipline was emerging that I called Investigative Psychology.

Looking back on my contribution to the solving of the series of serious crimes and the emergence of the new area of psychology, I think I was fortunate in the timing within my own professional development as well as the evolution of police investigations within the United Kingdom. Although I had specialised in science at high school and had a conventional, laboratory-experiment-oriented training in my undergraduate degree at Liverpool University, my interests in the arts led me to want to pursue psychology outside of the laboratory. Consequently my PhD work was based in a Department of Building Science, studying the impact of open-plan office design on worker performance.

The focus of my doctorate, awarded in 1968, drew me into research and teaching in a school of architecture, at Strathclyde University in Glasgow. This enabled me to help develop what was initially called Architectural Psychology, but later became known more generally as Environmental Psychology. I published widely in that area and set up the first academic Journal of Environmental Psychology, becoming aware through these activities of the processes out of which new academic disciplines emerge.

A further fortunate success was my being awarded a yearlong fellowship, derived from my involvement in architectural research, to the Tokyo Building Research Station. The threat of earthquakes made the Japanese very concerned with building evacuations. Therefore, I became aware of the importance of designing buildings not only in preparation for earthquakes, but also for fires and other emergencies. Understanding human behavior in these contexts was crucial. Consequently, starting in the mid-1970s, I carried out a decade of research studying what people did when caught in a building on fire. This had important professional consequences for me, requiring me to interact with policy makers and senior management. I was called to give evidence to government enquiries into disasters and provide consultancy to major industries on how to reduce accidents in potentially very dangerous factories.

As a result of these experiences, when asked by a senior police officer in 1986 if I could “help catch the man before he killed again,” I had the professional and academic experience to be able to indicate how I could work with the police to help them. I subsequently described this in my award-winning book, Criminal Shadows (Canter, 2000). I tackled the task given me as a consultancy task, not as an academic research project. But I brought to it an approach to examining what actually happens, what people do in their daily lives, which had been honed in the School of Architecture and studying emergencies and accidents in industry.

This was rather different from the usual approach that psychologists took to criminals a quarter of a century ago. Then, most psychologists who had contact with criminals did so through their clinical practice. Consequently, their approach was to treat criminals as patients who dealt with the world in somewhat bizarre ways. My view was that—although the psychological reasons for the crimes may be somewhat imponderable—their behavioral processes were open to study as was any other activity outside the laboratory.

In the initial case of the London rapist and murderer, the police only made available the details of those crimes. But once my contribution was regarded as a success, they gave me access to more information in police records. Analyses of this material showed there were recurring patterns within it. This led me to realize that there were many aspects to the ways in which
psychology could contribute to investigations. It was clear these ways included improving how information is collected by the police. After all, analyses of police documents were useless if those documents were full of errors. Such improvements of police data encompassed the organization of the material they collect as well as issues such as detecting deception, false confessions, and false allegations.

Thus my work challenged the popular view of the psychologist contributing to an investigation as a lone genius with brilliant insights. This notion is derived from crime fiction, owing more to the exploits of Sherlock Holmes than to any real life input. I became aware that there was a systematic discipline growing out of scientific psychology that had much to offer. This was very different from the notion of “offender profiling,” which has been given an almost mythical status because of its fictional representations. These were strongly influenced by FBI Special Agents claiming unique skills in determining the characteristics of offenders from the details of the crime scene. They therefore came up with assertions, like the often reported one that it was useful to distinguish between ‘organized’ and ‘disorganized’ serial killers, when they did not really know how to test those assertions. So when they were tested, it was no surprise that their distinction was not supported.

The insights of special agents that the way a crime is committed can tell us something about the criminal are valuable, but their lack of understanding that this relationship was central to many areas of psychology led them to make some inappropriate claims. For example, the claim that their insights were only relevant to bizarre crimes or those with some significant “psychological” component does not have any scientific basis. A moment’s thought reveals that, to take just one type of logical component does not have any scientific basis. A moment’s thought reveals that, to take just one type of logical “component does not have any scientific basis. A moment’s thought reveals that, to take just one type of general crime, how a person commits a burglary tells us something about that person. Establishing the relationship between a person’s actions and their characteristics is really a problem of developing empirically sound inferences.

It was these considerations that led me to become aware that a new discipline should be clearly identified to bring together the interrelated aspects of psychological contributions to investigations. From my background working with architects and decision makers, I knew that such a discipline should connect directly with what actually happens in investigations. Consequently, as well as incorporating investigative information and the development of inference processes, it was essential that consideration was given to how the possibilities derived from psychological analyses could actually support investigative decision making. These three interrelated components of (a) information retrieval and evaluation, (b) inference development around the notion of a “profiling equation,” and (c) decision support became the formal definition of the new area of Investigative Psychology. Masters and doctoral programs as well as a textbook and journal all helped to establish this as a fruitful new area of psychology.

Looking back on all this, I see that in fact I’ve always been an investigative psychologist in a broad sense, taking the idea of investigation as a form of problem-solving psychology, not only concerned with the investigation of crimes. Studying how people coped with working in vast open offices, actions in a building on fire, increasing safety in dangerous industries, are all aspects of problem solving in real-world contexts. They all require an investigation into ongoing issues of what people do and the sense that can be made of that. In my grander moments, therefore, I like to think that what has emerged out of all this research is a new way of doing psychology that is relevant to challenges outside of academia.

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**PROFILING**

Profiling is a technique that attempts to identify the behavioral, cognitive, emotional, and demographic characteristics of a person based on information gathered from a wide range of sources. In a majority of cases, profiling attempts to describe an unknown person, but in some cases it is used to chronicle the behavioral patterns, thought features, and emotional characteristics of a
known person. Many professionals who are engaged in this activity today prefer to call themselves behavioral analysts rather than profilers. Behavioral analysis connotes a more scientific activity, and in some agencies, a behavioral analyst is given more credence than a profiler. In reality, they may or may not have been trained in the same way. We continue to use the more common term, but we emphasize that continuing efforts are needed to render profiling a scientific enterprise.

Broadly speaking, we can divide profiling into five categories: (1) crime scene profiling (often called criminal profiling, offender profiling, or criminal investigative analysis), (2) geographical profiling, (3) suspect-based profiling, (4) psychological profiling, and (5) equivocal death analysis (also called the psychological autopsy). Although there is some overlap among the types—such as with crime scene profiling and geographical profiling—we believe the division helps in understanding the various and complex distinctions among the different methods (Bartol & Bartol, 2013).

Crime Scene Profiling

Crime scene profiling is assumed to have been developed by the FBI in the early 1970s to provide investigative assistance to law enforcement in cases of serial homicide or serial rape (Homant & Kennedy, 1998). At that time, the FBI opened its training academy in Quantico, Virginia, and established its Behavioral Science Unit (BSU), which is now called the Behavioral Analysis Unit (BAU). Even earlier than that, police investigators occasionally consulted behavioral scientists for help in hard-to-solve crimes—such as the case of New York’s Mad Bomber in the 1950s and the Boston Strangler in the 1960s (Bartol & Bartol, 2013; Greenburg, 2011). The FBI’s approach, however, was the first systematic effort in the United States to make profiling a normal part of law enforcement investigations. Profiling developed rapidly in the United Kingdom during the same time period, chiefly as a result of the work of social psychologist David Canter, who as mentioned above ultimately established a Centre for Investigative Psychology. Also as mentioned, Canter avoided the term profiling, and he steered away from the clinically based approach that was emphasized by the FBI at that time. He chose, rather, to focus on a data-based method for investigating criminal activity (see again Perspective 3.1). Today, crime scene profiling has expanded to various countries across the globe (Goodwill, Lehmann, Beauregard, & Andrei, 2016).

Regardless of whether it is clinically or statistically based, crime scene profiling requires describing some of the significant behavioral, cognitive, emotional, lifestyle, and demographic features of an unknown person believed to be responsible for a series of crimes. In other words, the crime scene characteristics at best should link up with who the offender is in general; at least, they should help police understand something about the crime. In most cases, the profile sketch is based on characteristics and evidence gathered at the crime scene as well as reports from victims or witnesses, if there are any. Based on this information, the profiler tries to predict characteristics and habits of the offender and where and how his next crime may occur.

Crime scene profiling, at its best, is not about entering “the evil mind of the serial killer” but has more to do with discovering how victims are chosen, how they are treated, and what forensic evidence is left at the crime scene or on the victim that will assist in apprehending the offender. One of the most common misconceptions about crime scene profiling is that profilers make predictions or assumptions about an offender’s personality (Rainbow & Gregory, 2011). However, conclusions and descriptions of an unknown offender’s personality not only lack reliability and validity, but the statements also often do not help police identify potential suspects. It does not help to tell police that the perpetrator is likely to be masochistic, for example; telling them of possible behaviors associated with masochism is more helpful. Another common misconception is that crime scene profiling is an established scientific enterprise. This probably springs from information found in the entertainment media, especially popular TV programs.
such as the CSI series. Although profilers are expected to offer advice that is methodologically sound and based on empirical research and psychological principles, profiling, at this stage of its development, has not achieved established scientific status (Kocsis, 2009; Rainbow & Gregory, 2011; Snook, Cullen, Bennell, Taylor, & Gendreau, 2008).

Crime scene profiling is most often undertaken when investigators have few clues that could help solve the case and they are making little headway in identifying potential suspects. To a very large extent, the profiling process is dictated by the quality of the data collected on previous offenders who have committed similar offenses. For example, if the profiler believes, on the basis of research, that most burglars are male, are under 30, and commit their burglaries within a 20-mile radius of where they live, these are helpful clues in searching for suspects. Based on previous data, the profiler also may suggest that the person is likely to be a young, unmarried, male, blue-collar worker with highly aggressive tendencies who makes frequent appearances on the bar scene, or a female, semiskilled worker who is a substance abuser. Perhaps the perpetrator is even more likely to be a middle-aged loner with a steady income who seldom draws attention to himself. Note the importance of the word likely in each of these speculative comments. Crime scene profiling—even in its most sophisticated form—rarely can point directly to the person who committed the crime. Instead, the process helps develop a reasonable set of hypotheses for identifying the persons who might have been responsible for a crime or series of crimes. It may be very helpful during the investigative process, but the eventual identification of the primary suspect is accomplished through competent police work.

Furthermore, contrary to popular belief, crime scene profiling is not and should not be restricted to serial murder or serial sexual assaults. It has considerable potential value when applied successfully to crimes such as arson, terrorist acts, burglary, shoplifting and robbery, Internet crimes, computer hacking, and white-collar crimes such as bank fraud or embezzlement.

In most instances, a series of crimes thought to be committed by the same person or persons is most likely to draw an attempt at profiling, especially if law enforcement investigators are baffled concerning potential suspects. If done correctly, the profile should at least eliminate very large segments of the population as suspects. If done incorrectly, it can lead investigators far astray. If the profile proves helpful to investigators, it can often suggest that a series of crimes has been committed by the same person, a process called linkage analysis. Linkage analysis is a method of identifying crimes that are likely to have been committed by the same offender because of similarities across the crimes (Woodhams, Bull, & Hollin, 2010). Like crime scene profiling in general, however, linkage analysis has its supporters as well as its detractors (Risinger & Loop, 2002).

Nevertheless, despite its enormous public and media interest—including depictions of profilers in the entertainment media—profiling is not a frequent investigative activity of the police and public safety psychologists discussed in Chapter 2. In fact, many police psychologists question the use of this technique. In a nationwide survey of police psychologists by Bartol (1996), for example, 70% said they did not feel comfortable profiling and seriously questioned its validity and usefulness. Ten years later, Torres, Boccaccini, and Miller (2006) found that less than 25% of trained psychologists and psychiatrists thought profiling was scientifically reliable and valid.

Interestingly, though, there may be a tendency to embrace crime scene profiling under different names, such as behavioral analysis, investigative psychology, or criminal investigative analysis. The Torres et al. (2006) survey discovered that forensic professionals who were asked to evaluate the term criminal investigative analysis believed the procedure was significantly more reliable and valid than those professionals asked to rate the term profiling. The authors’ findings support the position that when we attach a more scientific-sounding name to this practice, profiling is viewed more favorably. A similar view appears to be held by the courts (Cooley,
According to Torres et al., "Many professionals who engage in profiling work believe that profiling testimony is more likely to be admitted into court when it is called something other than profiling" (p. 53).

Moreover, it appears that a majority of police investigators believe that profiling, broadly defined, is useful (Snook et al., 2008). For example, J. L. Jackson, van Koppen, and Herbrink (1993) surveyed police officers in the Netherlands and found that 3 out of 6 thought that criminal profiling had some usefulness. In the United Kingdom, Copson (1995) found that about 83% of police officers believed that criminal profiling was operationally useful, and 92% said they would seek criminal profiling advice again. Many years ago, Pinizzotto (1984) discovered that only 17% of police officers thought profiles were useful. There continues to be extensive debate on the effectiveness of the profiling endeavor, whether or not it is cloaked in scientific terminology. Therefore, an area desperately in need of attention from forensic psychologists is profiling research. In other words, it is critical that we learn how reliable or valid the various profiling procedures and methods currently being used are, and how (or if) they can be improved to allow meaningful application to law enforcement and other forensic realms. (See Table 3.1 for a summary of the various types of profiling.)

### Geographical Profiling and Crime Mapping

Offending patterns often occur or cluster within certain geographical areas, such as a specific area of a city. There are two major ways these crime patterns may be analyzed: geographical profiling and geographical mapping. **Geographical profiling** refers to the analysis

<table>
<thead>
<tr>
<th>Form</th>
<th>Brief Definition</th>
<th>Key Weaknesses</th>
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<tbody>
<tr>
<td>Crime Scene Profiling</td>
<td>Examines features of the crime scene to infer or deduct characteristics or motivations of offender</td>
<td>Often based on unvalidated assumptions—such as organized versus disorganized crime scenes; subject to investigator biases, especially commitment bias; insensitive to manipulation by offenders and changes in their behavior</td>
</tr>
<tr>
<td>Geographical Profiling and Mapping</td>
<td>Analyzes locations associated with an unknown usually serial offender; analyzes hot spots of crime</td>
<td>Not helpful if offenders move out of area; does not consider psychological characteristics other than an offender’s comfort zone</td>
</tr>
<tr>
<td>Suspect-Based Profiling</td>
<td>Systematic collection of data on previous offenders to identify additional offenders</td>
<td>Lends itself to illegal or biased profiling, based on characteristics such as race, religion, ethnicity</td>
</tr>
<tr>
<td>Psychological Profiling</td>
<td>Detailed description of psychological characteristics of one known individual, not necessarily criminal; used in threat or risk assessment</td>
<td>Descriptive, may be speculative and dependent upon unreliable source material; in threat and risk assessment, type of measures used may not be valid</td>
</tr>
<tr>
<td>Psychological Autopsy</td>
<td>Detailed description of psychological and background characteristics of deceased individual, with intent to determine the manner of death</td>
<td>No accepted guidelines on how to conduct. When raised in court, highly subject to not being admitted, or to being refuted</td>
</tr>
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Table 3.1 Forms of Profiling and Key Weaknesses of Each
of geographical locations associated with the spatial movements of a single serial offender, whereas geographical mapping is concerned with analyzing the spatial patterns of crimes committed by numerous offenders over a period of time. We should emphasize, though, that both procedures may be used in tandem or together. In a sense, geographical mapping focuses on identifying the “hot spots” of certain types of crime. The procedure has been used in Europe since the first half of the 19th century and began to be used in the United States during the early 1900s. It continues today in more sophisticated fashion and is often demonstrated in popular law enforcement TV shows like NCIS and its spin-offs. It is not unusual for urban police departments to train some officers as geographical mappers or to hire someone who specializes in that task, either full time or as a consultant. Geographical profiling—as opposed to mapping—focuses on the offender rather than only on spatial crime patterns. It is a method of identifying the area of probable residence or the likely area of the next crime of an unknown offender, based on the location and spatial relationships among various crime sites (Guerette, 2002). Whereas a crime scene profiler hypothesizes about the demographic, motivational, and psychological features of the offender, the geoprofiler concentrates on developing hypotheses on the approximate location of the offender’s residence, his base of operations, and where the next crime may occur. It is usually used when a series of crimes are occurring—such as burglaries, car thefts, arsons, sexual assaults, bombings, bank robberies, child abductions, or murders—and the primary suspect is believed to be one person or a small group.

Although it may not seem that geographical profiling has much to do with psychology, the enterprise can be tied to psychological principles, such as the need to operate within one’s comfort zone or the desire to commit crime as far away from one’s home as possible. A good example of a psychological connection with geographical profiling is the “hunting patterns” theory proposed by Rossmo (1997). From a large database of criminal offenders, Rossmo suspected that offenders often have known movement patterns or comfort zones in which they operate. Rossmo developed a computer program called Criminal Geographic Targeting (CGT), which created a topographical map assigning different statistical probabilities to areas that fall within an offender’s territory. From that information, the offender’s residence or base of operations may be estimated. Rossmo’s theory is most relevant to serial offenders, particularly violent offenders like those who rob or sexually assault. We will return to Rossmo’s approach in Chapter 9.

Rossmo (1997) recommends that geographical profiling be combined with criminal or crime scene profiling for maximum effectiveness in developing probabilities for offender identification. In addition, he admonishes that geographical profiling is essentially an investigative tool that does not necessarily solve crimes but should help in the surveillance or monitoring of specific locations.

**Suspect-Based Profiling**

Whereas crime scene and geographical profiling examine features of a current unsolved crime, suspect-based profiling is derived from the systematic collection of behavioral, personality, cognitive, and demographic data on previous offenders. In most instances, the suspect-based profile summarizes the psychological features of persons who may commit a crime, such as drug trafficking, detonating a bomb, or hijacking a plane, based on features of past individuals who have committed similar crimes. The end product of suspect-based profiling should describe people from various offender groups. “For example, someone driving at a certain speed, at a certain time of day, in a certain type of car, and of a certain general appearance may fit the profile of a drug courier and be stopped for a search” (Homant & Kennedy, 1998, p. 325). “General appearance,” as used in the above quote, may refer to patterns of suspicious behavior, age, or manner of dress, but it also unfortunately has referred to race or ethnicity.
Probably the best-known and most controversial type of suspect-based profiling is racial profiling, which refers to police-initiated action that relies on the race, ethnicity, or national origin rather than the behavior of an individual or information that leads the police to a particular individual who has been identified as being, or having been, engaged in criminal activity. (Ramirez, McDevitt, & Farrell, 2000, p. 53, emphasis added)

Profiling of this type is illegal—courts have determined that police action cannot be taken against a person just because that person is black or Hispanic, for example. As we noted in Chapter 2, a federal judge in 2013 ruled the stop-and-frisk policy of the New York Police Department was unconstitutional because the policy encouraged police to rely on race or ethnicity in stopping and questioning citizens rather than on suspicious behavior. Since then, stop-and-frisk programs across the United States have been scrutinized by civil liberties groups, citizens, public officials, and courts for their possible infringement on constitutional rights.

In the 21st century, immigration has emerged as a hot-button political issue, particularly but not exclusively in states bordering Mexico. The combination of high unemployment rates and concerns about drug trafficking led to a desire among some for a “crackdown” on people entering the United States illegally or remaining here after temporary visas have expired. Note that two separate problems are identified here: (1) cross-border transportation of illegal drugs and (2) immigration status that is not documented. It is obvious that, though drug trafficking is a problem, people who seek to enter the United States are not typically drug dealers—they are doing so in search of a better way of life. Many also are refugees seeking asylum from repressive regimes or safety after suffering from environmental disasters. (See Focus 10.1 in Chapter 10 for discussion of ways in which psychologists assess and work with immigrants.)

Ethnic and racial profiling has been used beyond the detection of drug couriers or undocumented immigrants, and profiling also has been extended to religious groups, most particularly Muslims. Since the terrorist attacks of September 11, 2001, and subsequent crimes (e.g., Boston Marathon bombing in 2013, San Bernardino attack of 2015), ethnic, racial, or religious groups who fit the “profile” of terrorists have been subjected to more scrutiny by law enforcement officers and more extensive security screenings in airports or at immigration checkpoints. The discovery of explosive devices in shoes, underwear, and cargo led the Transportation Security Administration (TSA) to initiate full-body scans or pat-downs of all air travelers in many airports across the United States in 2010. Public outrage at the scans—as well as threatened and actual legal action—led the TSA to modify some of its procedures in recent years. The intrusive full body scans are not as extensively used, and travelers who are asked to undergo them—but who object—may request a pat-down search instead. Critics of these security measures believe that, even if all passengers are subjected to searches of their baggage and possessions, persons of Middle Eastern descent are more likely to be taken aside for more intrusive body scans or pat-downs. Moreover, some convicted individuals—including the so-called Shoe Bomber, Richard Reeve, and Colleen R. LaRose, otherwise known as “Jihad Jane”—did not conform to the profile. Both were convicted of terrorist activities and sentenced to federal prisons.

After 2001, the TSA trained more than 2,000 airport security personnel in various methods of identifying suspicious behavior and facial expressions that suggest terrorist or destructive intentions (Bradshaw, 2008). The training in passenger profiling is partly based on the research of psychologist Paul Ekman (2009) and the success of a 2002 pilot program at Boston’s Logan International Airport (Bradshaw, 2008). However, the technique developed by Ekman is far from foolproof. Ekman admits that 9 out of every 10 persons detected have perfectly innocent reasons for their suspicious behavior. This hit-to-miss ratio is of concern to many civil libertarians. “Many travelers may be subjected to undue attention simply because they have a fear of flying, feel intimidated by being scrutinized by uniformed screeners or are carrying items that
cause them shame, such as legal but erotic literature” (Bradshaw, 2008, p. 10). We will discuss research on the detection of deception more fully later in the chapter.

**Psychological Profiling**

In the psychology of investigation, **psychological profiling** refers primarily to the gathering of information—usually on a *known* individual or individuals who pose a threat or who are believed to be dangerous. In some cases, the identity of the individual is unknown, but he or she has made a clear threat to do harm to some specified target, such as by sending an anonymous letter. The target may be a person, a group, an organization, or an institution. Psychological profiling in this context is also used to assess the risk that someone will be violent in the future, even though he or she may not have made an explicit threat.

There are two primary and overlapping procedures used in psychological profiling: threat assessment and risk assessment. Threat assessment is used to determine if an actual, expressed threat is likely to be carried out; risk assessment is used to determine if a person is dangerous to self or to others. Both of these assessments are accomplished through various evaluation measures, background checks, observations, and interviews. It is important to stress that forensic psychologists conduct risk and threat assessments for purposes other than investigation, and there is a rich store of research in both areas. We will discuss them in more detail in the chapters ahead. Risk assessment will be covered in the next chapter, where the most common tasks of forensic psychologists are discussed. Threat assessment, a related but separate enterprise, will be discussed in Chapter 8.

Psychological profiling also occurs outside the psychology of investigations, although it still may be useful to those investigating crime. This occurs when researchers prepare profiles of a specific group of offenders—e.g., the spouse abuser, the child molester, the firesetter, or the stalker. Some psychologists, particularly those who are more clinically based, are highly engaged in preparing these types of profiles, with varying degrees of success. Investigators may make use of these profiles in deciding whether a particular suspect “fits the profile” of a certain type of stalker or a certain type of sex offender. Although profiles of this type may be helpful, they also may mislead investigators and must be approached cautiously. We will discuss profiles of this type in chapters where specific crimes are covered, such as stalking, sex offending, and domestic assault.

Finally, a more clinical enterprise must be mentioned. Mental health practitioners, such as psychologists or psychiatrists, sometimes prepare an extensive report on the psychological characteristics of one known individual. This is a speculative process, based on available documents as well as interviews, including at times interviews with the subject, although such personal interviews are rare. Psychological profiling of this type has a long history of use by military and intelligence organizations (Ault & Reese, 1980; Omestad, 1994). Profiles have been prepared of individuals as varied as Adolf Hitler, Osama Bin Laden, international leaders, and U.S. presidents as well as lesser political figures. Although these profiles may make for interesting reading, they have very little scientific validity and are not the type of profiles we give attention to in this text.

**The Psychological Autopsy**

The final category of profiling discussed herein is the **psychological autopsy**, which refers to a procedure that is done following a person’s death in order to determine his or her mental state prior to the death. For instance, determining whether a death is due to autoerotic stimulation or suicide is extremely important, especially for parents and other family members and friends. Likewise, survivors often want to know whether a loved one’s death was an accidental drug overdose or a suicide. In other cases, what appears to be a suicide might actually be a homicide.
The psychological autopsy was originally devised to assist certifying officials in clarifying deaths that were initially ambiguous, uncertain, or equivocal as to the manner of death (Shneidman, 1994). The method was first used in 1958, when the Los Angeles medical examiner/coroner Theodore J. Murphy consulted Edwin S. Shneidman, director of the LA Suicide Prevention Center, for assistance in determining the cause of an unusually high number of equivocal, or unexplained, deaths. Shneidman is generally credited with first using the term psychological autopsy.

The postmortem psychological analysis is also called the reconstructive psychological evaluation (RPE), or equivocal death analysis (EDA) (Poythress, Otto, Darnes, & Starr, 1993), but psychological autopsy is the more common term (Brent, 1989; Ebert, 1987; Selkin, 1987). The EDA, or the equivocal death psychological autopsy (EDPA), is usually reserved for those investigations conducted by law enforcement officials, especially the FBI, who primarily examine the crime scene material and other information directly available to the police (Canter, 1999; Poythress et al., 1993). Psychological autopsies may also be important in determining insurance payments as well as national security issues (Ebert, 1987). For example, the autopsy may reveal that the deceased individual committed suicide after violating a code that forbade divulging classified information to others (Ritchie & Gelles, 2002).

An equivocal death is one where the manner of death is unknown or undetermined, and it is believed that about 5% to 20% of all deaths are equivocal (Shneidman, 1981; T. J. Young, 1992). The term manner has special significance in any death investigation. Basically, “the manner of death refers to specific circumstances by which a death results” (La Fon, 2008, p. 420). There are five generally accepted manners of death: natural, accident, suicide, homicide, and undetermined (La Fon, 2008).

Today, the psychological autopsy is primarily undertaken in an effort to make a reasonable determination of what may have been in the mind of the deceased person leading up to and at the time of death—particularly if the death appears to be a suicide. La Fon (2008) identifies two basic types of psychological autopsies: suicide psychological autopsy (SPA) and equivocal death psychological autopsy (EDPA). The goal of the SPA is to identify and understand the psychosocial factors that contributed to the suicide. In this case, suicide has been established (e.g., witnesses may have seen the person shooting himself), but the person conducting the autopsy must try to discern the reasons why he did this. The goal of the EDPA, on the other hand, is to clarify the manner (or mode) of death and to determine the reasons for the death. It may not be a suicide. Although the cause of death is generally clear, the manner is often unclear (T. J. Young, 1992). For example, T. J. Young gives the example of a parachutist who falls to the ground from an altitude of 5,000 feet and dies as the result of multiple injuries. In this case, an investigator cannot immediately ascertain whether the parachute malfunctioned (accident), or whether the parachutist intentionally jumped with a bad parachute (suicide). Alternatively, the parachute may have been tampered with by someone else (homicide), or the parachutist may have suffered a heart attack during the jump (natural).

In most instances, the psychological autopsy is done for insurance purposes. Although some insurance policies do compensate the family if the death is determined to be suicide, many policies do not. Consequently, if the manner of death is equivocal, it is in the best financial interest of the insurance company to hire a forensic psychologist to do a complete psychological autopsy to determine whether the death was more likely the result of suicide or some other cause. A vast majority of the psychological assessments to uncover a person’s thoughts and feelings prior to his or her death have been done in the United States, usually in civil or criminal litigation (Canter, 1999). In recent years, many product-liability lawsuits have revolved around whether certain drugs can be blamed for suicides of both adults and juveniles. According to the U.S. Food and Drug Administration (FDA), at least 130 prescription drugs can produce suicidal thoughts or actions (Lavigne, McCarthy, Chapman, Petrilla, & Knox, 2012), but this does not mean that a court will agree that a particular drug was directly responsible for a person’s suicide. Nevertheless, some plaintiffs have been
successful in winning suits or have arrived at settlements based on the results of psychological autopsies.

According to La Fon (2008), the U.S. military is one of the major consumers of psychological autopsies: “Each branch of the Armed Forces, including the Navy, Army, and Air Force, [has] the task of conducting an EDPA for every equivocal death that occurs either on base property or to military personnel” (p. 422). Both civilian and military forensic psychologists conduct these autopsies, and they are conducted both in cases of equivocal death and suspected suicide. In most cases, the beneficiaries of the deceased military personnel receive remuneration regardless of the cause of death. Interestingly, there is evidence that the suicide rate among military personnel during and after deployment in Iraq and Afghanistan was higher than during any other war or occupation. Increasing numbers of suicides by military personnel both during and after deployment prompted mental health advocates and some military leaders and politicians to call for more support and treatment programs for military personnel and veterans.

In legal contexts, the psychological autopsy is frequently conducted to reconstruct the possible reasons for a suicide and ultimately to establish legal culpability on the part of other persons or organizations. For example, if a police officer shoots himself on the steps of the state capitol building, the message he was trying to send to all those concerned may be unclear. Family members of the deceased, convinced the department had poor stress-management techniques or nonexistent early-detection procedures for identifying emotional problems in its officers, may sue the department for emotional and financial damages. Under these conditions, a mental health professional may be retained to reconstruct the victim’s mental state during and before the incident. Psychological autopsies have also been part of civil proceedings in the private sector, where it was necessary to ascertain whether certain tasks on the job affected the person—such as various kinds of harassment by fellow workers or supervisors—or whether certain job-related accidents prompted the eventual suicide. Failure of the company or organization to have adequate policies and procedures in place for handling problems of this sort may be sufficient reason to find the company liable. Another purpose of psychological autopsy is as a research tool to collect data that are likely to be useful in the prediction and prevention of suicide (T. J. Young, 1992). For example, research indicates that a majority of suicide victims communicate their intentions to at least one person before killing themselves. Many victims also leave suicide notes. Research further indicates that psychological autopsies can be of therapeutic value to survivors (Ebert, 1987; Henry & Greenfield, 2009).

Although some progress has been made in determining the reliability and validity of the psychological autopsy, much work still needs to be done, and even psychologists who conduct such autopsies are concerned about this issue (Snider, Hane, & Berman, 2006). Some research reveals that the psychological autopsy shows considerable promise for determining suicide intentions of the deceased (Portzky, Audenaert, & van Heeringen, 2009). Of course, the quality of the psychological autopsy will depend significantly on the training, knowledge, experience, and clinical acumen of the investigator (J. L. Knoll, 2008). Poythress et al. (1993) further warn that persons who conduct reconstructive psychological evaluations should not assert categorical conclusions about the precise mental state or actions suspected of the actor at the time of his or her demise. The conclusions and inferences drawn in psychological reconstructions are, at best, informed speculations or theoretical formulations and should be labeled as such. (p. 12)

PROBLEMS WITH PROFILING

Contemporary scholars (Alison, Bennell, Ormerod, & Mokros, 2002; Alison & Canter, 1999; Goodwill et al., 2016; Snook et al., 2008; Taylor et al., 2015) identify many flaws with profiling,
particularly with crime scene profiling. One major flaw is the assumption that human behavior is consistent across a variety of situations; another is the assumption that offense style or crime scene evidence is related to specific psychological characteristics. The second point refers to the tendency of profilers to believe that specific clues gathered at the crime scene reveal certain generalizable psychological characteristics and thought patterns of certain types of offenders. Recall that Table 3.1 summarizes the key weaknesses of each form of profiling. Below we focus on these specific limitations, while also recognizing that some weaknesses pertain to more than one form.

**Crime-Scene Profiling Limitations**

In summarizing problems associated with profiling, Alison, Bennell, Ormerod, and Mokros (2002) underscore the fact that many professional profilers, especially those who rely on crime scene information, tend to have unsubstantiated assumptions about personality theory, the power of that personality or disposition to virtually override the influence of all situations, and the validity and accuracy of the profiling process itself. Profilers often rely too heavily on “gut feelings,” believing they have special knowledge and experience to put the pieces of the puzzle together, and too little on science.

The tendency to rely heavily or exclusively on gut feelings, intuition, hunches, subjective experiences, or whatever nonscientific approaches a profiler may take in forming his or her opinion, puts offender profiling in serious jeopardy in the eyes of the judicial system. Consequently, courts in the United States, Canada, Australia, and the United Kingdom are requiring criminal profiling to meet a rigorous standard in order to be admitted as valid scientific evidence (see, generally, Bosco, Zappalà, & Santtila, 2010, for a review of this important issue). For example, profiling has very rarely been admissible in the British legal system as expert evidence because of its lack of established reliability and validity (Gregory, 2005). In the United States, the situation varies, often depending upon the credentials of the profiler or the degree to which the profiler can persuade the court that his or her testimony is based on reliable and valid scientific principles (Bartol & Bartol, 2013; J. A. George, 2008; Risinger & Loop, 2002).

A common error by some profilers is the failure to consider the power of the situation to influence behavior. Part of the situation is the victim and all the characteristics brought to the incident by that individual or individuals. As noted by Jenkins (1993), “The failure to consider victim-oriented factors often leads researchers to misunderstand the nature of such activity” (p. 462). Considering these factors is not equivalent to blaming the victim for the crime; rather, the focus is more on what type of victim is likely to be chosen by an offender or where victims might reside. The lack of a victimology perspective generates confusion and often leads to further flaws in the development of offender profiles. Jenkins strongly asserts that an overlooked tool available to profilers is examining characteristics of the victim, because “offenders and victim comprise a common and interdependent ecology” (p. 463). Cromwell, Olson, and Avary (1991) also discuss the importance of the victim perspective in their study of burglary. Cromwell and his colleagues contend that the activities of the victim play a critical role in how burglars pick a home to burglarize, how they enter, and how long they remain. The authors believe that “most burglaries in the jurisdictions studied appeared to result from a propitious juxtaposition of target, offender, and situations” (p. 47).

Profiling is ultimately based on the assumption that human behavior is consistent across time (trans-temporal consistency) and place (trans-situational consistency). The profile process, by its very nature, presupposes that crime scene clues provide the skillful investigator with clues of the perpetrator’s personality traits, habits, and even thought processes. Furthermore, there is an assumption that key factors of the personality identified at the crime scene should generalize to other situations, including future crimes.

The ability to predict the behavior and tendencies of individuals across different situations (trans-situational consistency) is very much open to debate. For example, some earlier
researchers (e.g., Mischel, 1968; Mischel & Peake, 1982) argued that human behavior across different situations is inconsistent and that notions of stable behavioral dispositions or personality traits are largely unsupported. Research by Merry and Harsent (2000) cogently illustrates that most criminal behavior, such as burglary, changes as the dynamics of the situation change. Consequently, crime scene activity is likely to be different from crime to crime. Although trans-situational consistency remains highly questionable, consistency across time, or temporal consistency, is acknowledged. As long as situations are similar, people will likely respond the same way over their life spans. But when situations change, behavior is apt to change. Therefore, criminal behavior that has been reinforced in a particular context is more apt to recur in a similar context than across a wide variety of different settings. A person who had engaged in a lifetime of burglary, for instance, is more likely to burglarize again if surrounded by similar psychosocial situations that have a perceived reward value. Therefore, there is trans-temporal consistency in behavior if the perceived situation is the same. On the other hand, if his or her environment has changed substantially (e.g., longtime partner in crime has died, or the person has aged to the point where physical agility or mental ability has substantially deteriorated), the burglarizing is less likely to continue.

In addition, if the offender has learned that some behavioral patterns do not work well, he or she is likely to modify this approach. These offenders, whether rapists, burglars, arsonists, killers, or child sexual offenders, often change their modus operandi (MO) as they become more proficient at their crime. Or, as Turvey (2002) points out, the MO may change due to an offender’s deteriorating mental state, the increased use of drugs or alcohol, or changes in lifestyle and habits. There may also be developmental and maturation changes in offenders, especially as these pertain to the brain.

The MO refers to the actions and procedures an offender uses to commit a crime successfully. It is a behavioral pattern that the offender learns as he or she gains experience in committing the offense. However, it is subject to change. For example, burglars are continually changing their procedures and techniques to better accomplish their goals, and serial killers often become more daring and risky in their selection of victims. Because the offender generally changes the MO until he or she learns which method is most effective, investigators may make a serious error if they place too much significance on the MO when linking crimes.

Investigators may make another serious error if they believe offenders lack intellectual skills. Turvey (2002) suggests that some offenders improve their MO through educational and technical materials: “Professional journals, college courses, textbooks, and other educationally oriented media available at a public library, or now via the Internet, can provide offenders with knowledge that is useful toward refining their particular MO” (p. 232). Turvey further writes, “arsonists may read Kirk’s Fire Investigation . . . rapists may read Practical Aspects of Rape Investigation . . . murderers may read Practical Homicide Investigation . . . and bank robbers may subscribe to security magazines” (p. 232). In addition, many offenders read newspaper, magazine, and television accounts of their crimes, which sometimes provide clues that the police have identified concerning the MO. Such accounts may prompt the offender to alter his or her methods of operation. In some instances, the offender may perfect the MO by engaging in a career or profession that enhances the methods used, such as an arsonist joining a volunteer fire department or even becoming a fire investigator.

The above discussion emphasizes that accurate assessment and prediction require not only an evaluation of the person, but also an evaluation of the psychosocial environment within which the behaviors we are trying to predict occur. Failure to consider the context of the behavior is destined to produce disappointing results.

**Suspect-Based Profiling Limitations**

The limitations mentioned above pertain particularly to crime scene profiling. Suspect-based profiling has its own shortcomings. It is (or should be) a nomothetic enterprise in that it tries
to make general predictions about offenders based on clusters of data gathered from previous offenders. A nomothetic approach refers to the search for general principles, relationships, and patterns by examining and combining data from many individuals. Research psychology is largely nomothetic as opposed to idiographic in scope. The idiographic approach emphasizes the intensive study of one individual, usually called the case study. A case study of the coping behaviors of an individual or the biography of a famous person is an example of the idiographic approach.

Unfortunately, some profilers take the idiographic approach rather than the nomothetic and consequently are in danger of missing the mark. This is especially so if taking the nomothetic approach would emphasize situational variables. For example, data gathered on many offenders might reveal that the late afternoon hours are a prime time for burglaries in a particular geographical area, yet a certain clinician might have had four burglars on her caseload over several years of personal experience in dealing with offenders, each of whom committed the crime in the early morning hours. She might then infer that early morning hours are the time most burglaries will likely occur. Too many profilers and clinicians prefer exclusive use of the idiographic approach, even though research has continually revealed that predictions based on statistical probability, calculated from research on clusters of offenders under various conditions, are far more accurate. Predictions based on statistical probability and data are called actuarial predictions, as opposed to clinical predictions, which are based on subjective experience.

**Psychological Autopsy Limitations**

As described earlier, the conclusions and inferences drawn from psychological autopsies are far too often informed speculations that lack standardized protocol backed by systematic research. In addition, considerable systematic research needs to be conducted to establish the reliability and validity of psychological autopsies. However, as mentioned, strides are being made in that direction as researchers are suggesting standard protocols.

**Psychological Profiling Limitations**

Psychological profiling has many of the same limitations as the other forms of profiling, but considerable progress has been made in this area during the past 25 years (Hanson, 2005, 2009). As we will note in later chapters, research on the predictive accuracy of current risk and threat assessment instruments is extremely robust. Most of these instruments demonstrate levels of predictive accuracy superior to that of professional opinion (Hanson, 2009). This is because the instruments are largely based on actuarial prediction rather than strictly on clinical prediction. Nonetheless, actuarial prediction combined with structured clinical judgment is a worthy approach. Structured clinical judgment—also known as structured professional judgment—refers to a trained clinician’s judgment coupled with empirically based guidelines. We will return to this topic in the next chapter.

**Overall Limitations**

There are other general problems with profiling, in addition to those mentioned above. Some recent studies reveal that a large proportion of the conclusions and predictions contained within profile reports are both ambiguous and unverifiable (Alison, Smith, Eastman, & Rainbow, 2003; Alison, Smith, & Morgan, 2003). That is to say, statements are so vague that they are open to a wide range of interpretations. For example, what does it mean that someone is “a loner” or “goes to church regularly”?

Moreover, there seems to be a tendency for some police investigators to “creatively interpret” the ambiguous information contained within profiles to fit their own biases about the case.
or the suspect. They select those aspects of the profile that they perceive as fitting the suspect while ignoring the many conclusions and predictions that do not seem to fit.

If a suspect does arise during the investigation, officers may wish to actively ignore the information that does not fit the suspect, or perhaps unwittingly exaggerate the merits of the information that might fit and not appreciate the extent to which the information could fit a wide range of individuals. (Alison, Smith, & Morgan, 2003, p. 193)

The strong preference to have one’s views confirmed is known as confirmation bias. “When it operates, it places us in a kind of closed cognitive system in which only evidence that confirms our existing views and beliefs gets inside; other information is sometimes noticed but is quickly rejected as false” (Baron & Byrne, 2000, p. 8). In short, confirmation bias is the tendency to notice and remember information that lends support to our views on something, such as a suspect. It is a tendency that might be prevalent not only in the subjective interpretations of a profile but also in its creation.

Although there are many flaws in current profiling methods, if conducted appropriately, profiling could have a promising and extremely useful future. Despite the concerns of many critics, some psychologists who engage in this practice defend it vigorously (see, e.g., Dern, Dern, Horn, & Horn, 2009). If profilers take into account the interaction between the person and the situations (and the influence of the victim), the science of profiling can lead to more accurate and helpful sketches of the offender. In addition, profilers should be cautious about relying exclusively on trait or personality theory and rely more on contemporary psychological theory and research on human behavior. They should look for the conditional probability of certain behaviors occurring under certain situations instead of assuming that behavior remains consistent across all situations. All of this will require greater reliance on and involvement in well-executed scientific research.

POLICE INTERVIEWING AND INTERROGATION

The interviewing of witnesses or other persons with possible information about a crime is fundamental to law enforcement work. When questioning a person who is suspected of the crime and who is in custody, the process is an accusatory one and is properly called an interrogation. However, persons who eventually become suspects may first be simply interviewed—thus, an interview often turns into an interrogation. When that point is reached, though, the individual must be advised of his or her legal rights.

The primary aim of police interrogation is to obtain a confession from a suspect or to gain information (usually incriminating evidence) that may lead to a conviction. Approximately 80% of criminal cases are solved by less than a full confession (O’Connor & Maher, 2009). Interrogation is most often initiated when there is weak evidence against the suspect. Once interrogation is used, it is successful in gaining at least some incriminating evidence about 64% of the time (Blair, 2005; Leo, 1996).

Experienced police interrogators use a wide variety of methods and techniques that are tailored to their personality and style. Recent research has identified 71 unique interrogative techniques used by law enforcement that fall under six major headings (Kelly, Miller, Redlich, & Kleinman, 2013). (See Table 3.2.) Nevertheless, most have been trained in a dominant method—the **Reid method**—which is taught in police academies across the United States (Inbau, Reid, Buckley, & Jayne, 2004, 2013). Available research indicates that approximately one half of all police investigators in the United States have been trained in the Reid method (Cleary & Warner, 2016; Kostelnik & Reppucci, 2009). Skillful and legally useful interrogation involves the application of psychological principles and concepts. Although we cover
this topic in this chapter, it should be emphasized that police psychologists are less likely to be conducting research on interrogation-related issues than are psychologists associated with academic institutions who are conducting research in legal psychology (e.g., Crozier, Strange, & Loftus, 2017; Kassin et al., 2010; Rogers et al., 2009; Rogers et al., 2010). However, police and public safety psychologists may serve as consultants, training officers in methods of interview and interrogation. In addition, they should be very aware of the pitfalls and myths surrounding the process.

**Accusatorial Versus Information Gathering Approaches**

Research on police interrogations has focused on the effectiveness of two different approaches: the *accusatorial approach* (primarily used in the United States) and the *information-gathering approach* (developed in the United Kingdom) (J. R. Evans et al., 2013; Meissner, Redlich, Bhatt, & Brandon, 2012). The accusatorial approach is best represented by the Reid method mentioned above. However, numerous researchers have criticized the Reid method for a variety of reasons, but especially because of its strict accusatorial tone (Kassin et al., 2010; L. King & Snook, 2009). As stated by Kassin et al., “the modern American police interrogation is, by definition, a guilt-presumptive and confrontational process—aspects of which put innocent people at risk” (p. 27).

As practiced, the Reid method is basically highly confrontational, pitting police interrogators against the suspect who is typically placed under stressful conditions, even though it may begin with an interview approach (e.g., inviting a person to come to the police station or questioning the person in a nonconfrontational style). Its overall direct purpose is to obtain a confession from the suspect if at all possible, rather than acquiring information. In this approach, the interrogator is instructed to maintain psychological control, use psychological manipulation whenever possible, and ask straightforward “yes” or “no” questions. It requires several steps that include (a) custody and isolation, (b) confrontation, and (c) minimization. In the custody and isolation step, the suspect is detained in a small interrogation room and left long enough to experience the uncertainty, the stress, and the usual insecurity associated with police custody and interrogation. We have all seen this approach, with the suspect sitting alone in a small room, observed through a one-way mirror, waiting tensely for a detective to enter and begin the questioning. The confrontation step focuses on the interrogator accusing the suspect of the crime, expressing certainty in that accusation, citing real or manufactured evidence, and preventing
the suspect from denying the accusations as much as possible. Minimization—which may come into play at any time— involves a “sympathetic” second interrogator morally justifying the crime to the suspect, saying anyone else in that situation would probably do the same, and expressing sympathy with the suspect’s understandable predicament. The presumption here is that the suspect is likely to believe that more lenient and understanding treatment will be given once he or she confesses.

This approach is strongly advocated by Inbau et al. (2013) in their extensively used police manual on interviewing and interrogation. (Note that interviewing is included in the manual.) “Conceptually, this [interrogation] procedure is designed to get suspects to incriminate themselves by increasing the anxiety associated with denial, plunging them into a state of despair, and minimizing the perceived consequences of confession” (Kassin & Gudjonsson, 2004, p. 43). However, although the approach frequently results in obtaining confessions, the method can also lead to false confessions, a topic we will cover below. In addition, Reid-like, confrontation methods are often used by police in questioning children and adolescents suspected of committing crimes, a practice that has been criticized because of the vulnerability of this age group (Cleary, 2017; Cleary & Warner, 2016; Reppucci, Meyer, & Kostelnik, 2010).

Canada and Western European countries, by contrast, often use less confrontational “interrogation,” which many prefer to call investigative interviewing. Those asking the questions may believe the individual they are questioning is guilty, but they avoid confrontational behavior. The tenor of the interrogator or investigative interviewer focuses on gathering information about the crime (Beune, Giebels, & Taylor, 2010; Bull & Milne, 2004). This approach is designed for investigators to take a more neutral role by probing the suspect’s knowledge through open-ended questions (in contrast to the yes/no questions) and a more informal conversational style. Unlike the accusatorial style, the information-gathering approach avoids trickery and deceit as much as possible. The “bait question,” through which police tell a suspect that they have evidence they really do not have, is often expressly forbidden. This type of questioning has been found to produce misinformation (Luke, Crozier, & Strange, 2017). The nonconfrontational, information-gathering technique emphasizes rational arguments and being kind as methods of persuading the interviewee to provide information. The Reid method has some aspects of this—for example, it begins with an “interview” and moves on to the “interrogation” stage if enough information has been derived from the person to consider him or her a suspect. In one of the very few studies examining the two methods to date, J. R. Evans et al. (2013) found that the information-gathering approach yields more relevant and useful information than the accusatorial approach. In addition, some researchers (e.g., Meissner et al., 2012) believe that the information-gathering approach will lead to substantially fewer false confessions.

One illustration of the information-gathering approach is the PEACE model, which was developed in the United Kingdom in the early 1990s and is gaining acceptance in Europe, Canada, Australia, New Zealand, and some parts of the United States (Starr, 2013). The acronym PEACE stands for Planning and Preparation; Engage and Explain; Account; Closure; and Evaluation. According to Starr, “By 2001, every police officer in England and Wales had received a basic level of instruction in the method” (p. 48). Cleary and Warner (2016) note that “the PEACE model is considered a successful alternative to accusatory interviewing and has … expanded to additional nations and organizations” (p. 271).

In this approach, police use the interview to gather evidence and information rather than to obtain a confession. They are told not to focus on the nonverbal behavior of the person being interviewed—such as signs of anxiety. Interestingly, they are not allowed to bluff or suggest that they have evidence that they do not have—which is very different from what the Reid method allows.

In the PEACE model, the interviewers are encouraged to establish rapport, use open-ended questions, and “address contradictions via the strategic presentation of evidence” (Swanner, Meissner, Atkinson, & Dianiska, 2016, p. 296). The research literature strongly
indicates that the PEACE model and similar information-gathering approaches are effective methods for eliciting more useful information from both cooperative and reluctant individuals (Swanner et al., 2016).

**HUMINT Interrogation**

During the past two decades, a vast amount of psychological research has been directed at forensic interrogation. More recently, however, a growing interest has shifted toward the psychological aspects of military intelligence interviewing and interrogation, or **HUMINT (HUManINTelligence) interrogation**. Part of the shift in interest was prompted by interrogation practices in Guantanamo Bay, Iraq, and Afghanistan (Evans, Meissner, Brandon, Russano, & Kleinman, 2010), and the threat of terror worldwide (Granhaig, Vrij, & Meissner, 2014). It is critical to emphasize here that we do not refer to the controversial interrogation measures that were denounced by the American Psychological Association in 2009 and again in 2015.

HUMINT interrogations are intended to be humane, but they differ in important ways from the forensic interrogation associated with civilian law enforcement agencies. The goal of forensic interrogation is to acquire admissions and evidence of past behavior that will lead to a conviction at trial. “The goal of a HUMINT interrogation is to obtain reliable information from a source about the past, present, or future, which can be used to improve national security and/or further national interests” (Evans et al., 2014, p. 867). In other words, forensic interrogation seeks identifying who is responsible for a crime, whereas HUMINT interrogations seek knowledge for security purposes and in so doing prevent crime, including terrorist activities.

A second major difference is that forensic interrogation primarily utilizes one or two interrogators, whereas HUMINT usually relies on a team approach that includes an interrogator, interpreter, and analyst (Russano, Narchet, & Kleinman, 2014). The interpreter is responsible for facilitating communication and building relationships during the interrogation. In cross-cultural interrogations, the interpreter not only speaks the national language, but often will represent the cultural bridge to help the interrogator relate to the person being interrogated. The analyst prepares the interrogator with information about the person being interviewed and interrogated and helps to make sense of the information elicited. In a sense, the analyst is the “fact checker.” Experienced interrogators recognized that competent interpreters and analysts are indispensable team members in the HUMINT process.

A third difference is that the interrogation practices of HUMINT are governed by international policies. In 2009, for example, then-President Obama stated that all HUMINT interrogations must conform to the Geneva Convention (Evans et al., 2014). This of course prohibits any techniques of interrogation that are deemed to be torturous, such as simulated drowning.

Most experienced HUMINT interrogators firmly believe that rapport and relationship building are the most effective at eliciting reliable information, whereas interrogative practices that rely on confrontational approaches are significantly less effective (Brandon, 2014; Russano et al., 2014). Research from around the world resonates with growing conclusions that forensic or HUMINT interviewing or interrogations that treat people who are interrogated with respect and recognition of a shared humanity are the most successful at obtaining reliable information (Brandon, 2014). Accusatorial, confrontational forms of interrogation, and the presentation of false evidence or bluffing about evidence can be very problematic (Evans et al., 2014).

One approach that has been shown to be especially effective in eliciting reliable information from cooperative respondents, and even from criminal suspects, is the **cognitive interview (CI)** (Fisher & Geiselman, 1992; Rivard, Fisher, Robertson, & Mueller, 2014). The CI is a method that utilizes memory retrieval and communication techniques aimed at increasing the amount of accurate information from witnesses, informants, victims, or suspects. We cover the CI in more detail in the later section of this chapter discussing eyewitness testimony. However, the CI has shown to be of significant value in gaining information in both forensic interrogation and intelligence gathering (Swanner et al., 2016).
In summary, though, the confrontational Reid and similar models are so firmly established in police procedure that they are unlikely to disappear or even be modified substantially anytime soon. Many police are resistant to giving up this cherished approach. Furthermore, courts—including the U.S. Supreme Court—have by and large been supportive of police interrogation methods, unless they involve the most flagrant violations. Nevertheless, with more exposure to alternative, information-gathering methods, and with more evidence of the incidence of false confessions resulting from accusatorial interrogation strategies, future modifications may occur.

The U.S. Supreme Court, as suggested above, has granted law enforcement wide latitude in trying to obtain confessions from suspects (see, generally, Leo, 1996). Despite the landmark ruling in *Miranda v. Arizona* (1966) establishing the basic rule that suspects in custody must be informed of their right to remain silent and their right to a lawyer prior to being questioned, many criminal suspects do not understand these rights and often waive them. Courts have allowed police to lie or trick suspects, such as by pretending they have eyewitness testimony or evidence that does not exist. This is sometimes referred to as bait questioning—and as noted earlier, such questioning is not allowed in PEACE model versions of investigative interviewing. Research on bait questioning indicates that it is psychologically coercive (Kassin et al., 2010) and even affects how juries respond to evidence down the line (Luke, Crozier, & Strange, 2017). The boundaries of such deception—that is, just how far can police go?—continue to be challenged in the courts. In New York, for example, the court of appeals (the highest appellate court in the state) considered a case involving police deception during interrogation and concluded that police went over the line in their questioning (see Focus 3.1). They told the suspect that the child he was accused of harming was still alive, when the child had actually died. The suspect confessed to battering the child, but his attorney argued that this confession was psychologically coerced. The defense attorney sought to put on the stand a psychological expert on coerced confessions but was denied that opportunity at the trial level.

A confession must be freely and voluntarily given if it is to be used as evidence; it cannot be coerced. A waiver of one’s rights must be voluntary, knowledgeable, and intelligent—and many police agencies require a signed waiver before allowing the interrogation of a suspect in custody without a lawyer’s presence. Even so, many legal psychologists are concerned about the potential for psychological coercion, and they have explored whether suspects truly understand the significance of their *Miranda* rights. A long line of research in developmental and legal psychology (e.g., Grisso, 1981, 1998; Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007; Rogers et al., 2009, 2010) indicates that many individuals, including but not limited to juveniles and persons with mental disorders or deficiencies, have difficulty understanding the significance of the *Miranda* warning that is routinely given in the United States. Researchers in Canada have reached similar conclusions with respect to police cautions (Eastwood & Snook, 2010; Eastwood, Snook, Luther, & Freedman, 2016). Even words that are typically used in these warnings—words like consult, entitled, interrogation—are unfamiliar to many suspects, and the role of the lawyer is often not understood. (See Perspective 3.2, in which Dr. Eastwood discusses research on comprehension of rights as well as training police officers in interrogation techniques.)

**Interrogation of Juveniles**

Interestingly, recent research has revealed that interrogators use the same tactics to interrogate adolescents as they do for adults (Cleary & Warner, 2016; Feld, 2013; Meyer & Reppucci, 2007; Reppucci, Meyer, & Kostelnik, 2010). However, developmental and forensic psychologists have long known that adolescents are fundamentally different from adults biologically, cognitively, and psychologically (Cleary, 2017). Cleary writes, “These developmental changes that all youth—regardless of legal involvement—experience during adolescence hold the potential to powerfully impact youth perception, behavior, and decision making inside the interrogation
FOCUS 3.1. PSYCHOLOGICAL COERCION: A CASE EXAMPLE

In 2009, Adrian Thomas was convicted of murder in the death of his 4-month-old son and sentenced to 25 years to life in prison. Thomas, who is tall and large, had confessed to throwing the infant, who had been born prematurely, forcefully onto a low-lying mattress, but the New York Court of Appeals—that state’s highest court—ruled unanimously in 2014 that the confession was not a valid one; it was psychologically coerced in violation of the man’s constitutional rights (Thomas v. New York, 2014).

When Thomas was questioned by police, he knew that his son had suffered a brain injury but did not know that the baby had been declared brain dead. His 9.5-hour interrogation was divided into two segments, because after 2 hours, Thomas demonstrated suicidal tendencies. He was hospitalized for 15 hours, then returned for another round of questioning.

Detectives used a variety of psychological tactics to obtain a confession. They threatened to arrest his wife if he did not confess to harming the child; they told him the baby was still alive; they told him he would not be charged with a crime if he confessed to throwing the baby down, because it had been an accident; they told him his son might be saved if he would tell them exactly what he did to cause the brain injury. “Do you want to save your baby’s life, or do you want your baby to die tonight?” he was asked. After the lengthy interrogation, he admitted to having thrown the baby on at least three separate occasions in the week preceding the baby’s death, and he demonstrated the force with a clipboard that police had provided. The court of appeals later ruled that, taken together, these tactics amounted to psychological coercion that rendered his confession involuntary.

Chief Judge Jonathan Lippman, who wrote the opinion of the seven-member court, noted that the record was replete with false assurances made to the suspect, and that his will was overborne. In other words, even if Thomas had indeed thrown the infant down, this was an invalid confession.

As we note in the text, police in the United States are allowed to mislead suspects and to lie in order to obtain a confession, but they may not force a confession. In cases involving psychological trickery, the line between acceptable deceit and coercion is often blurry. Like many courts before it, the New York court did not set a hard and fast rule. Looking at the facts of this particular case, they concluded that police used trickery to an extreme, and it violated the defendant’s right against self-incrimination. The court ordered Thomas to be retried without the evidence of the confession.

At the second trial, jurors did not hear the confession. Although the prosecution offered medical testimony, the defense called a nationally known pediatric neuroradiologist who testified that swelling and bleeding in the infant’s brain could have occurred as early as birth. In this expert’s opinion, the infant died because of the resulting aggressive bacterial infection, not at the hands of the father. Thomas was found not guilty.

Questions for Discussion

1. Should police be allowed to deceive suspects in order to obtain a confession? If yes, how can they know where to draw the line? If no, why not?
2. There are many additional facts associated with this case, but based on the above information alone, which interrogation tactics used by the police, if any, do you believe were unacceptable?

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During the third year of my undergraduate degree at the University of New Brunswick, I happened to notice a handwritten leaflet posted on the bulletin board in the psychology department. The leaflet asked any students interested in joining a forensic psychology research group to contact Dr. Brent Snook. Despite having no concept of what the field of forensic psychology entailed, or what being part of a research group meant for that matter, I decided to e-mail Brent and express my interest. And the rest, as they say, is history.

After my undergraduate degree was completed, my wife Joanna and I tossed all our earthly possessions into our 10-year-old Toyota Tercel and headed to Memorial University in Newfoundland where Brent now worked. I spent the next 6 years completing my MSc and PhD in experimental social psychology under Brent's supervision. Then, in 2013, after a 2-year stint teaching at Bishop's University in Quebec, I took an Assistant Professor position within the Forensic Psychology program at the University of Ontario Institute of Technology (UOIT), where I remain.

As a reader of this textbook, you likely have, or are developing, an interest in the field of forensic psychology. And the question that I've often asked myself is, out of all the possible academic disciplines and areas of interest, why did I choose this field? To me, the attraction of conducting research within forensic psychology is that it allows us to ask fascinating and relevant questions about human behaviour while also providing the means to answer them systematically. For example, during my doctoral thesis I began one of my current streams of research with the simple question—Do people understand their legal rights when being questioned by the police? The answer, as revealed through a series of studies using samples of both adults and youths, was a resounding "no" (Eastwood & Snook, 2010; Freedman, Eastwood, Snook, & Luther, 2014). This led to further studies identifying ways to increase the comprehension of interrogation rights—and thereby increasing the ability of these rights to protect interviewees—by modifying the structure and wording of the rights and the way in which they were delivered by interviewers (Eastwood & Snook, 2012; Eastwood, Snook, Luther, & Freedman, 2016).

Along with measuring the comprehension of interrogation rights, my two other major streams of research are focused on (1) how alibis are generated and assessed within criminal investigations, and (2) identifying practical tools to facilitate recall from interviewees. For example, in my current alibi research I am trying to answer the question—"What factors do people consider when attempting to judge the truthfulness of an alibi?" Results thus far have suggested that in order to be rated as highly believable, alibis should contain corroborating testimony from several people unrelated to the suspect—which is problematic given that many innocent suspects are unlikely to be able to generate this level of corroborating evidence (Eastwood, Snook, & Au, 2016).

With regard to the final stream, my colleagues and I have recently completed a series of studies measuring the ability of sketching (i.e., drawing out an event on paper) to boost the amount of information recalled by interviewees versus just asking them to recall the event verbally (Eastwood, Snook, & Luther, in preparation). Results from these studies suggest that using the sketch procedure leads interviewees to generate more substantial information than a standard interviewing approach, and therefore sketching may be an effective tool for officers to use when interviewing victims and witnesses of crimes.

Outside of the laboratory, I have worked with law enforcement organizations across Canada to provide science-based investigative interviewing training to their members. Most recently, this has included designing and delivering courses on victim, witness, and suspect interviewing to officers with the Durham Regional Police Service. These training experiences have led to many of the real-world research questions that I pursue. In turn, I continually update the content of my training based on the results of my research. I have found this opportunity to conduct systematic psychological research, and then integrate those findings into applied practice to improve the workings of the criminal justice system, to be among the most gratifying aspects of my
In addition, there is growing evidence that because of their neurological and psychosocial immaturity, adolescents are more prone to giving false confessions (Steinberg, 2014a), a topic to be discussed below. They appear to be especially prone to fall for the interrogative strategy of “minimization,” in which the alleged behavior is downplayed by the interrogator. (“If I were in your shoes, I probably would have done the same thing.”) The juvenile is led to believe that the interrogator will be more lenient and release him or her from custody sooner if he or she cooperates and admits to the alleged behavior. A sobering example is the real life case of the Central Park 5, five teenagers who were convicted of attacking and raping a jogger in 1989. They were later exonerated, but not before one had served 11 years and four had served 7 years in prison. Defense lawyers argued unsuccessfully that their confessions were false, produced by coercive interrogation techniques. Thirteen years after the crime, a prisoner serving a sentence for three rapes and a murder confessed to the attack. His unique knowledge of the crime and a DNA match on the samples recovered from the victim resulted in the original convictions of the teenagers being vacated.

Cleary (2017), following the work of Laurence Steinberg, outlines three interrelated factors that are important in understanding the differences between adolescents and adults during interrogation: (1) reward sensitivity, (2) self-regulation, and (3) future orientation. In reference to reward sensitivity, adolescents are far more sensitive to immediate rewards than adults are. They are more attentive to the good things and more willing to take risks to get them immediately. During the long and stressful experience of interrogation, the immediate reward of getting to go home is a powerful one for the adolescent. Research by Drizin and Leo (2004), for example, found that “getting to go home” was one of the most frequent reasons cited for adolescents to falsely confess to a crime they had not committed. Lack of self-regulation (self-control) will likely allow the adolescent to take the immediate reward to go home in place of maintaining innocence in the face of the unpleasant confrontation of interrogation. The lack of future orientation allows the adolescent to prefer going home immediately without considering the future consequences of admitting guilt. Adolescents “tend to be focused myopically on short-term gains and losses rather than the longer-term consequences for their actions” (Kassin, Perillo, Appleby, & Kukucka, 2015, p. 253). To a large extent, the reward sensitivity aspect of adolescent development appears to override the ability to suppress immediate inappropriate actions in favor of long-term appropriate ones (Casey & Caudle, 2013).
False Confessions

In recent years, a Sundance channel series, *Rectify*, followed the life of a man who confessed to and was convicted of the murder of a young girl when he was 18 and then sentenced to death. He had spent 19 years on death row before being exonerated based on DNA evidence. The series depicts his adjustment to freedom and struggles to cope with his experiences, build new relationships, and repair relationships with his family. It also depicts, in flashbacks, his life on death row. But viewers of the series sometimes wondered, why would he have confessed to something he did not do?

*Rectify* is a fictional account, but it is not an unrealistic one. As a result of recent DNA exonerations, it has become increasingly clear that a disturbing number of convictions were the result of such false confessions gained through questionable procedures or illegal tactics (Kassin et al., 2007; Kassin et al., 2015). A false confession “is an admission to a criminal act—usually accompanied by a narrative of how and why the crime occurred—that the confessor did not commit” (Kassin et al., 2010, p. 5). These DNA exonerations and other high-profile cases leading to the convictions of innocent people have prompted increased scrutiny of police interviewing and interrogation methods and strategies (DeChue & Rogers, 2012). We must emphasize that only a percentage of DNA exonerations involved false confessions, however. Studies have suggested that about 16% to 25% of the DNA exonerations have involved false confessions (Garrett, 2011; Kassin et al., 2015; O’Connor & Maher, 2009), while a majority have involved inaccurate eyewitness testimony (which also may be a significant factor in false confessions, because suspects confess falsely after having been told that an eyewitness identified them). We discuss eyewitness identification later in the chapter.

Numerous individuals cleared by DNA evidence never confessed to their crimes; on the contrary, they maintained their innocence from the moment of their arrest. (Focus 3.2 highlights the work of the Innocence Project, a research and advocacy group for prisoners believed to have been wrongfully convicted.) However, as the DNA exonerations came rolling in, many stories did involve false confessions and how they were obtained. “Many of these stories recount horrific tales of psychologically—and, in some cases, physically—abusive interrogations of children and adults, including many who were cognitively impaired” (Kassin et al., 2007, p. 382). These stories and the other high-profile cases have underscored the enormous role that psychologists can play in the research, investigation, and prevention of wrongful convictions (Kassin et al., 2010). Kassin (2008) contends that throughout the criminal justice system, confessions are met with naïve and uncritical acceptance. He finds that this naiveté is strongly buttressed by five myths: (1) Innocent people cannot be induced to confess through the use of legal and noncoercive interrogation tactics; (2) police investigators are often convinced they can identify truth tellers from liars during interviews, and consequently feel they are able to determine who should be interrogated; (3) relying on some combination of intuition and corroboration, police officers and other criminal justice personnel can distinguish between true and false confessions; (4) people facing interrogation are protected by their constitutional rights to silence and to counsel; and (5) if the confession was coerced and is erroneously admitted at trial, appellate courts can reasonably determine whether the error was harmless. We reiterate that Kassin stresses that the above are myths, not facts.

At this point, no one can accurately estimate the rate of police-induced false confessions across the United States or the number of wrongful convictions caused by false confessions (Kassin et al., 2010; Leo & Ofshe, 1998), but the research clearly indicates that people can be induced to confess. As mentioned previously, though, it should be understood at the outset that most convictions are the result of the evidence acquired at the crime scene or through witness reports rather than through interrogations and a confession from the suspect.

Nevertheless, when a suspect does confess, the confession is universally treated as damning and compelling evidence of guilt; it is likely to dominate all other case evidence and lead to a defendant’s conviction (Leo & Ofshe, 1998). As a society, then, we should be particularly wary
of the false confession, as well as the confession that is coerced. According to Leo and Ofshe, American police are poorly trained about the dangers of interrogation and false confession. “Rarely are police officers instructed in how to avoid eliciting confessions, how to understand what causes false confessions, or how to recognize the forms false confessions take or their distinguishing characteristics” (p. 437). This is one important training service that police psychologists should be able to provide, and there is considerable evidence that they are beginning to do that (DeClue & Rogers, 2012; Lassiter & Meissner, 2010; Malloy, Shulman, & Cauffman, 2014). In addition, psychologists have been very active in researching what factors influence false confessions (Meissner et al., 2012; Redlich, 2010).

Most American police are exposed to only a cursory review of interviews and interrogation at the police academy and receive more extensive training when they become detectives or interrogation specialists at the police agency. However, police investigators are often convinced of their ability to tell who is lying and who is not during interviews and interrogations. This confidence stems from some combination of on-the-job experience and police training programs that promise increased accuracy in deception detection (Kassin et al., 2007). Some programs claim an 85% accuracy rate after the training. Unfortunately, research continually reveals that training does not produce reliable improvement. In a majority of research findings, the accuracy rate of police investigators and other professionals improved only slightly better than chance after the training (Kassin et al., 2010).

Interrogation of suspects usually is undertaken after the police investigator(s), on the basis of an interview or investigation, determine or “feel” that the suspect is culpable. Consequently, in many instances, the interrogation process begins with an assumption of guilt, and the tactics employed in the interrogation are intended to break down the anticipated resistance of the suspect.

We must emphasize that estimates of false confessions are not high; the great majority of individuals who confess to crimes are probably guilty. In Europe, 12% of prisoners report that they have confessed to crimes they did not commit (Gudjonsson, 2003). In North America, police investigators estimate that about 5% of innocent people confess to crimes during interrogation (Kassin, 2008). Some experts suggest the percentage might be higher (O’Connor & Maier, 2009). But why does even this relatively small number confess? People confess to crimes they did not commit because they are promised lighter sentences, to protect others, because they are mentally ill, because they want to become “celebrities,” because they are exhausted after an extensive interrogation process, because they have little faith that they will be believed, as well as other reasons. In addition, some innocent people confess to a crime they did not commit because they come to believe (usually through persuasion) that they actually did do it.

In a summary of the research literature, Kassin and Wrightsman (1985) identified three types of false confessions: (1) voluntary, (2) coerced-compliant, and (3) coerced-internalized. The first type, voluntary false confessions, refers to a self-incriminating statement made without any external pressure from law enforcement. A well-known example of this type of voluntary false confession, Kassin (1997) notes, is when more than 200 people came forward and confessed to kidnapping the Charles Lindbergh baby, the most famous kidnapping case in U.S. history. Charles Lindbergh was an American hero, the first man to fly solo over the Atlantic Ocean. On March 1, 1932, the first-born child of Lindbergh and his wife, Anne, was kidnapped for ransom and later was found dead. The child was 20 months old. Although Bruno Richard Hauptmann was convicted and executed for the crime, doubts about his guilt have persisted around the case for years. As Kassin notes above, a large number of other individuals confessed to the crime, ostensibly in an effort to receive recognition or fame.

The coerced-compliant and the coerced-internalized false confessions, as their names imply, involve pressure from police officers and sometimes from other persons as well. Research has indicated that skillful manipulation, deception, or suggestive tactics under stressful conditions may lead to false confessions (Gudjonsson, 1992; Kassin, 1997). Persons who are mentally disordered or intellectually disabled are often asked more questions during the interrogation
process and are not surprisingly more confused by the experience (Redlich, Kulich, & Steadman, 2011). They are also more likely to give false confessions than those not disordered or disabled (Redlich, Summers, & Hoover, 2010). Under the stressful circumstances associated with interrogations, even an innocent person may come to believe that he or she is guilty of the crime. Kassin attributes much of the coerced false confession phenomenon to such psychological concepts as compliance and internalization, processes first identified by Kelman (1958). Compliance is a form of conformity in which we change our public behavior—but not our private beliefs or attitudes—to appease other people or reduce social pressure or threats from others. Internalization, on the other hand, refers to changes in our private thoughts or beliefs that occur because we sincerely believe in the issue or perspective.

Coerced-compliant false confessions, Kassin (1997) concludes, are most likely to occur after prolonged and intense interrogation experiences, especially in situations when sleep deprivation is a feature. The suspect, desperate to avoid further discomfort, admits to the crime even though this person knows he or she is innocent. Some of the original suspects in the
Central Park case apparently confessed at the urging of a parent or because they believed they would then be free to go home after being held at the police station for many hours. Other suspects have confessed to a crime after being told police had incriminating evidence against them, such as that a witness had identified them or their fingerprints were at the scene of the crime. These are examples of compliance without internalization.

**Coerced-internalized false confessions**, on the other hand, occur when innocent persons—who are tired, confused, and highly psychologically vulnerable—come to believe that they actually committed the crime (Kassin, 1997; Kassin & Kiechel, 1996). This is an example of compliance eventually developing into an internalization of the belief. In addition, the pressures to confess may not necessarily originate from police officers but may come from family members, friends, religious figures, and colleagues who communicate to the suspect that he or she will feel better by doing the right thing and admitting to the offense (or atoning for his or her sins) (McCann, 1998).

**Summary**

The spate of prisoners who have been cleared in recent years as a result of DNA evidence suggests that something went wrong as they were processed through the criminal justice system. Although many things could have gone wrong (e.g., inadequate assistance of counsel, misidentification by eyewitnesses), we have focused thus far on the interrogation process, which may have resulted in a false confession. However, even a “true” confession can be overturned by the courts if it is illegally obtained, in violation of the suspect’s constitutional rights. Law enforcement agents must learn to “do it right.” A confession must not be coerced, either physically or psychologically. Determining what, exactly, is psychological coercion can be very difficult, however.

Meissner, Hartwig, and Russano (2010) recommend that, given the number of training manuals and training programs that promote flawed interrogation methods, the ability to offer more effective and sound alternatives is of critical importance. These researchers call for a systematic research-based approach that identifies promising interrogation techniques with which “truth” can be established (Meissner, Russano, & Narchet, 2010). Their proposal urges police psychologists and other researchers to seek opportunities to partner with police investigators in developing interrogation techniques. This integrative approach has proved very successful in the United Kingdom and Canada, as we noted above in discussing the PEACE model (see also Bull & Soukara, 2010).

Meissner and Lassiter (2010) propose five recommendations for reforming police interrogations:

1. Record, preferably on video, all interrogations from beginning to end.
2. Prohibit the use of psychologically manipulative interrogation tactics that have been shown to produce false confessions.
3. Protect vulnerable persons (e.g., juveniles, intellectually disabled persons) in the interrogation room.
4. Ensure the appropriate administration (knowing and intelligent waiver) of *Miranda* rights prior to interviewing a suspect.
5. Train law enforcement investigators regarding factors that contribute to false confessions.

Taking such preventive measures would not only increase public confidence in police, but would also make it far less likely that evidence, including confessions, obtained during the interrogation or interview process will be disallowed from the final trial proceeding.
DETECTION OF DECEPTION

Entertainment media often portray police interviewing witnesses or suspects as being able to tell when they are telling the truth, often through their nonverbal behaviors. As in portrayals of profiling, the media presentation does not mesh with reality. Most forensic psychologists urge caution in dealing with nonverbal behaviors; although some behaviors may suggest that an individual is not telling the truth, there is no sure way to ascertain this. Licking one's lips may indicate nothing more than the fact that one is nervous or thirsty, and it is not unusual to be nervous if one is being interviewed or questioned by law enforcement officials.

This section will be focused on the detection of deception. Deception is behavior that is intended to conceal, misrepresent, or distort the truth or information for the purpose of misleading others. Obviously, the ability or procedure to detect deception would be an invaluable tool for any investigation. Furthermore, the global threat of terrorism “has led to an increased emphasis on the detection of deception in public places, including country borders, security checkpoints, airports, bus terminals, train stations, shopping malls, and sport venues” (Vrij & Granhag, 2014, p. 936).

The detection of deception or lying is an area of psychological research that has the potential to make highly meaningful contributions to investigations ranging from intelligence gathering and criminal interrogations to insurance fraud. However, the research so far has not been particularly promising. Attempts to identify reliable deception techniques have shown an accuracy level of barely above chance (54% to 57%) (Logue, Book, Frosina, Huizinga, & Amos, 2015). In addition, professionals—such as police officers and psychologists—are often no more accurate than laypersons (Gongola, Scurich, & Quas, 2017). More surprising, adults do not appear any better at detecting deception in children than they are at detecting deception in adults (Gongola et al., 2017). And the age of the child did not matter.

Research psychologists have identified three basic processes involved in deception: (1) emotion, (2) behavioral control, and (3) cognitive load (Vrij, 2008; Vrij, Granhag, & Mann, 2010; Zhang, Frumkin, Stedmon, & Lawson, 2013). For many years, it was assumed that emotions were the best indicator of deception. A lie has traditionally been associated with two different types of emotion: guilt and fear of detection (Vrij et al., 2010). It is commonly believed that deception is indicated if a person is nervous and anxious, especially during questioning. For instance, eye contact avoidance, excessive eye blinking, profuse sweating, unusual amount of face touching and rubbing, shaking hands or twitching legs, and nail biting are often assumed to be physical, emotional signs of fear or guilt. However, in recent years, research studies have consistently found that these behavioral patterns are not reliable cues for deception. For example, researchers have found that, rather than avoiding eye contact, liars tend to display more deliberate eye contact than truth tellers (Mann et al., 2013). Furthermore, one of the most important findings reported during the past decade is that very few people—whether professional experts or laypersons—are able to detect deception (or honesty) with much accuracy when relying on emotion-based cues (van Koppen, 2012).

Still, most people—including police investigators—are convinced that they are able to tell who is lying and who is not (Vrij, Akehurst, & Knight, 2006), if not on emotion-based cues, then certainly on nonverbal or behavioral ones. The results here are not impressive either.

According to Vrij et al. (2010), one of the reasons why people make errors in lie detection is that they fail to take into consideration the full complexity of deception. The research on behavioral control cues has generally focused on what attributes make a good liar. Vrij and his colleagues note that good liars possess at least 18 attributes that render deception difficult to identify. These attributes include lack of guilt or fearful feelings, self-confidence, and good acting ability. In addition, this area of research contends that not only do good liars try to continually monitor their own behavior, but they also monitor the interviewer’s reactions to their answers to the questions asked (Burgoon, Blair, & Strom, 2008; Vrij et al., 2010; Zhang et al., 2013). Therefore, studies suggest that good liars are fully aware of the common belief...
that nonverbal cues may signify deceit and thus concentrate on controlling them, such as controlling their own bodily indicators of guilt and nervousness. In summary, the research to date strongly suggests that neither emotions nor nonverbal cues are decent guides for identifying deception.

Vrij and Granhag (2007, 2012) argue that verbal cues may well be better guides. They believe that (1) concentrating on the verbal patterns of the suspect and (2) analyzing the manner in which the interviewer handles the questions will lead to improved deception detection. Vrij and Granhag further maintain that interviewers should create a cognitive load on the person being interviewed. In other words, interviewers and interrogators should try to increase the work load of the suspect when answering questions. This is because lying requires considerable cognitive effort, as the deceptive person must actively suppress truthful information and construct and remember false information (Carrión, Keenan, & Sebanz, 2010; Vrij et al., 2008; Vrij, Granhag, Mann, & Leal, 2011). Moreover, liars usually find it very difficult to provide much additional detail to their story, whereas truth tellers usually do not. Essentially, liars often try very hard to keep their story as simple as possible (Granhag & Strömwall, 2002). An effective approach for increasing cognitive load is to ask questions that the suspect does not anticipate, or to ask for more detail to the story (Lancaster, Vrij, Hope, & Waller, 2013). Another approach might be to ask the suspect to tell the story in reverse order (Vrij & Granhag, 2012). This approach increases cognitive load because it runs counter to the usual sequence of telling stories and is therefore more challenging for the suspect. This verbal approach is referred to as cognitive lie detection (Vrij, Fisher, & Blank, 2017).

Recent research has demonstrated that the cognitive lie detection approach produces superior results in accuracy detection (67%), lie detection (67%), and total detection (truth and lie detection together of 71%) compared to the usual methods of detection of truth detection (57%) lie detection (47%), and total detection (56%) (Vrij et al., 2017). The results indicate that using the cognitive lie detection method increases the chances of classifying individuals correctly as being either truth tellers or liars.

The Polygraph

Perhaps a more scientific method of attempting to detect truthfulness is the polygraph, commonly called the “lie detector.” It is important to emphasize, though, that the polygraph does not really detect lies or deception, but only the neurophysiological responses that accompany emotional reactions to guilt, shame, and anxiety. The instrument usually records heart rate, blood pressure, breathing rate, and skin conductance. Skin conductance refers to how well the skin conducts a small, imperceptible electrical current that is affected by slight changes in perspiration. One of the assumed telltale indicators of lying is increased perspiration. Presumably, when one tries to deceive, there are telltale bodily or physiological reactions that can be measured with sophisticated equipment and detected by a trained examiner called a polygrapher. In addition to observing the physiological measures, the skillful polygrapher makes behavioral observations and notations to infer truth or deception in the subject being examined. There is little doubt that the polygraph can accurately measure and record the physiological responses of the peripheral nervous system. Whether it can detect actual lying and deception is another matter. As William Iacono (2008), one of the foremost researchers in this area, notes, “It is generally recognized that there is no physiological response that is uniquely associated with lying” (p. 1295).

The first, crude lie-detection machine was invented by the psychologist William Marston, who also rather astonishingly created the character of Wonder Woman. During its early beginnings in the United States, Marston’s polygraph and others like it were used almost exclusively in criminal investigations. As noted by Iacono and Patrick (2014), polygraph testing was commonly used when the question at hand could not be resolved by the available evidence. However, as criminal suspects became more aware of their right not to
incriminate themselves, and as civil libertarians challenged the instrument’s validity, the use of the polygraph became less common. Furthermore, Congress severely limited the extent to which private employers can use the polygraph with the passage of the Employee Polygraph Protection Act (EPPA), enacted in 1988. This law has, in effect, ended preemployment polygraph screening by private employers as well as the periodic testing of employees to verify their good behavior (Iacono & Patrick, 1999). However, we still see examples of suspects volunteering to take a polygraph to clear their names or use of the polygraph in counterintelligence investigations.

One of the problems with the polygraph is the weight that juries are likely to attach to polygraph evidence (Iacono & Patrick, 2014), although some research has questioned this assumption (Myers, Latter, & Abdollahi-Arena, 2006). That is, if the polygraph evidence shows the defendant may be lying, there is a strong tendency for the jury to assume he or she is guilty. “Unlike other types of evidence a jury may hear, polygraph evidence has the potential to usurp the jury’s constitutionally mandated task of deciding guilt” (Iacono & Patrick, 2014, p. 649). Consequently, criminal courts normally have excluded polygraph testimony on the grounds that it may unduly influence jury decision making. For example in United States v. Alexander, 1975, the court, in reference to admitting polygraph evidence wrote,

> Based upon presentation of this particular form of scientific evidence, present-day jurors, despite their sophistication and increased educational levels and intellectual capacities, are still likely to give significant, if not conclusive, weight to a polygraphist’s opinion as to whether the defendant is being truthful or deceitful in his response to a question bearing on a dispositive issue in a criminal case. (p. 168)

However, in some cases, polygraph evidence can be admitted in a criminal hearing or trial in one of two ways. Basically, since a defendant cannot be forced to take a polygraph (United States v. Piccinonna, 1989), the defense must introduce it. In one situation, polygraph evidence can be introduced with prior stipulation of both the prosecution and the defense (Myers et al., 2006). Typically, under this condition, “the defendant may take a polygraph test with the agreement that the prosecutor will drop the charges if the test is passed, but may enter the test results into evidence without objection if the test is failed” (Myers et al., 2006, p. 509). About half the states allow this stipulation. The second way polygraph evidence may be introduced in a trial is when the defense asks to include the polygraph test results in the trial over the objection of the prosecution. Under these conditions, a pretrial hearing is normally held to determine if the judge will allow the results to be admitted into evidence. In these cases, the defense believes that polygraph evidence that demonstrates the defendant is not lying improves its case for a not-guilty verdict. Interestingly, despite the ongoing refusal by the courts to allow polygraph results into evidence except under unusual circumstances, the study by Myers et al., referenced above, reveals that jury-eligible adults did not find polygraph evidence to be persuasive in influencing their verdicts.

For the most part, however, the major uses of polygraph testing are in personnel selection or screening by government agencies and certain strategic industries, such as nuclear energy. The government exempted itself from coverage of the EPPA and has expanded the use of polygraph testing because of recent concerns about terrorism and national security (Iacono & Patrick, 2014). Currently, two dozen federal agencies routinely use polygraph screening, including the Departments of Defense, Energy, Homeland Security, and Treasury (Iacono & Patrick, 2014). U.S. governmental counterintelligence polygraph tests far outnumber the tests given at other organizations and at all other agencies (Krapohl, 2002). Furthermore, polygraph screening of police, law enforcement, and governmental security applicants has either remained at the same level or increased in recent years. Twenty years ago, Meesig and Horvath (1995) reported that approximately 99% of the large police agencies and 95% of the small police departments in the United States required the polygraph as an integral and indispensable part
of their preemployment screening procedures. There is little reason to believe that this observation is any less true today.

It should be mentioned that the typical polygraph examiner in the United States today does not have graduate psychological or research training, nor are all polygraph examiners licensed or graduates of accredited schools. As posited by Iacono and Patrick (2014), “it is unlikely that a forensic psychologist has administered a polygraph” (p. 613). They go on to emphasize that “polygraphs are administered by polygraphers who work in a profession that is largely disconnected from psychology and informed little by psychological science” (p. 613).

**Research on the Polygraph**

Many researchers continue to be very wary of the polygraph and its overall accuracy. Historically, professional field polygraphers have claimed extraordinary accuracy rates, ranging from 92% to 100% (Bartol & Bartol, 2004). Most biopsychologists and research psychologists find these statistics to be highly questionable. In addition to occasional arithmetic errors, none of the published reports gave any details of the methods and procedures used or of the criteria used to decide accuracy rates. Currently, the research conducted under laboratory or controlled conditions indicates that the correct classification of truthful and deceptive examinees ranges between 70% and 80% (Krapohl, 2002; Vrij & Fisher, 2016). However, the accuracy can be increased slightly through careful and intensive training of the examiner. Furthermore, in lab studies, computerized polygraph systems, in contrast to human evaluations, are slightly more accurate for detecting both truthful and deceptive respondents (Kircher & Raskin, 2002). Although many polygraphic research studies are available, they are subject to debate when conducted by polygraphers themselves rather than independent researchers (National Research Council, 2003).

The accuracy of the polygraph in detecting who is telling the truth and who is being deceptive is a highly complicated issue.

A number of factors—such as the specific technique used, the nature of the population tested, the issues to be resolved, the context of the examination, whether one is trying to detect truth or deception, the training of the examiner, what cues the examiner considers besides the polygraphic data, or even whether one is examining the victim or the suspect—all must be carefully considered before any tentative conclusions can be advanced. (Bartol & Bartol, 2004, p. 285)

The specific technique used has come under extensive research scrutiny. Several dominant approaches are used, the most widely adopted being the Control Question Technique (CQT), also referred to as the Comparison Question Test. According to Iacono (2009, p. 229), “Almost all practicing polygraph examiners assert that [the CQT] is nearly infallible.” Interestingly, polygraph researchers who are not affiliated with the polygraph profession are generally nonsupportive of the CQT (Iacono & Patrick, 2014). The CQT juxtaposes questions that are relevant to the crime with “control” questions—or questions whose truthful answers are known to the examiner. Physiological responses that differ from responses on control questions are then regarded suspiciously. Although the actual CQT is, of course, far more complex than we present here, its essential feature is the comparison of physiological responses, which only a trained examiner is able to interpret. However, critics of the CQT argue that its reliability and validity have not been sufficiently established through independently conducted research that is separate from the research conducted by the polygraphers themselves.

Researchers are more favorably disposed toward the Guilty Knowledge Test (GKT), one developed by the polygraph expert David Lykken (1959). Although this test is not widely used in the United States, it is used in other countries and is strongly endorsed by researchers.
The GKT requires that the polygrapher have access to information about the crime that would be known only to the perpetrator and has not been reported to the public. For this reason, it is best at “clearing” innocent suspects, because they are unlikely to exhibit damaging physiological responses to questions revealing details of the crime (Iacono, 2009). The test is impractical, however, because it is often difficult for examiners to obtain details that have not yet been widely circulated. Despite its strong research support, polygraphers do not generally get trained in the GKT and almost invariably use the CQT in conducting their examinations.

In recent years, there has been growing interest in the use of the polygraph in the supervision and treatment of sex offenders (Grubin, 2002, 2008; Iacono & Patrick, 2014). It is believed that the polygraph—compared with case records or offender self-reports—provides more complete and accurate information about an offender’s history, sexual interests, and offense behavior, thereby enabling more effective and targeted treatment strategies (Grubin, 2008). Some mental health and criminal justice professionals also think the polygraph is helpful in monitoring behavior and achieving adherence to prevention goals. One survey estimated that in the United States, polygraph examinations were used with 70% of community sex offenders in 2002 (R. J. McGrath, Cumming, & Burchard, 2003). In England, legislation was passed in 2007 that mandated polygraphic testing of sex offenders by the probation service on a trial basis (Ben-Shakhar, 2008; Grubin, 2008).

The use of polygraph testing for sex offenders has been criticized, however. As pointed out by Grubin (2008), the criticism has centered on three main issues: (1) concerns regarding how the polygraphic examinations are conducted, (2) the lack of scientific validity of the procedure, and (3) ethical concerns. Ben-Shakhar (2008) asserts that there are many major flaws in the reliability as well as other scientific shortcomings in polygraph examinations of sex offenders. Some forensic clinicians, however, continue to argue that the polygraph is highly useful in the management and treatment of convicted sex offenders.

**FORENSIC HYPNOSIS**

Compared with efforts to detect deception, efforts to obtain information by means of hypnosis are quite rare. Nevertheless, they do occur, but typically more with victims of crimes than with suspects. For example, a victim of an aggravated assault who seems to have “blocked out” the appearance of his or her assailant might be hypnotized in an effort to help the victim recall features that would help in identifying the perpetrator. However, this is a procedure that should be used only by highly trained and properly credentialed professionals.

In hypnosis, a mental health, general health, or forensic professional suggests to the participant that he or she try to experience particular changes in sensations, perceptions, thoughts, and behavior. Hypnosis is usually established by what is commonly referred to as an induction procedure. Although there are many different induction procedures, most center on suggestions for relaxation, calmness, and well-being. Induction instructions usually include asking the participant to imagine or think about pleasant experiences or things. During the induction, the participant may be sitting comfortably or lying down while concentrating on a “target” (such as a lit candle) and listening to the hypnotist’s voice. The participant is usually encouraged to drift into a sleep-like state while always hearing the hypnotist’s voice. Overall, most people who do become hypnotized find the experience very pleasant and relaxing.

People differ widely in their responses and susceptibility to hypnosis. “Some people cannot be hypnotized, a few are extremely hypnotizable, and the majority of the population has some moderate capacity to experience hypnosis” (Scheflin, 2014, p. 661). The ability to be hypnotized is believed to be an enduring and stable attribute, which peaks during the life cycle in late childhood and declines gradually thereafter (Spiegel & Spiegel, 1987). Among the factors that are important in inducing hypnosis are the following: (1) the level of trust the participant has in
the hypnotist, (2) the participant’s motivation and desire to cooperate, (3) preconceived notions the participant has about hypnosis, and (4) the context and reasons for the hypnosis (e.g., entertainment or critical information gathering). Trust, motivation, a strong belief in hypnotism’s powers, and a serious context (such as a criminal investigation) inspire most people to become hypnotized, but this does not mean that they will accurately recall events. Apparently, what distinguishes truly being hypnotized from simple behavioral compliance is the person’s ability to experience suggested alterations in perception, memory, and mood (Orne, Whitehouse, Dinges, & Orne, 1988).

A person’s ability to experience hypnotic suggestions is most often inhibited by fears and concerns arising from some common misconceptions. Contrary to some depictions of hypnosis in books, movies, or other media, people who have been hypnotized do not lose control over their behavior. Hypnotized individuals remain aware of who and where they are, and unless some form of temporary forgetfulness is specifically suggested, they usually remember what transpired during the hypnosis. It has long been known that all the experiences and responses that are elicited during hypnosis can also be produced in a normal state without hypnotic induction (Braffman & Kirsch, 1999). Hypnosis does, however, increase suggestibility. As noted by Braffman and Kirsch, “The only thing which characterizes hypnosis as such and which gives any justification for calling it a ‘state’ is its generalized hypersuggestibility” (p. 578). The hypersuggestibility aspect, however, is the one feature that is most troubling to forensic investigators and researchers concerned with recollections of witnesses or victims of crime incidents. In fact, “[t]he subject’s willingness to accept fantasy as reality during the hypnotic experience, together with the often dramatic vividness of recollections in hypnosis, may inspire great confidence that the recalled material is true to fact” (Orne et al., 1988, p. 25). This induced confidence, for example, may soundly convince the witness that his or her ambiguous view of the offender was much clearer than it really was.

Hypnosis has long been used in a variety of ways: as a form of entertainment (getting some people in an audience to do humorous things, presumably without their awareness), as a method to encourage people to give up smoking or lose weight, as a procedure in several branches of medicine for pain reduction, and as a means of enhancing the memory of eyewitnesses and victims in the criminal justice system. A common belief among some practitioners is that hypnosis can exhume long-forgotten or buried memories, such as repressed memories of sexual abuse. This belief has frequently been bolstered by anecdotal or clinical claims describing cases in which previously inaccessible memories have been brought to light by the mysterious hypnotic trance. (We will discuss this topic in more detail in Chapter 11.) Enhancement or revival of memory through hypnosis is known as hypnotic hypermnesia. Enhancement or recovery of memory through non-hypnotic methods, such as free association, fantasy, or recall technique, is called non-hypnotic hypermnesia.

Despite its long and varied history, we do not know precisely how hypnosis works, nor do we understand why some persons are readily susceptible to its influence but others are impervious. We do know that hypnosis seems to trigger few significant changes in bodily function other than those that occur in normal relaxation. We know also that hypnosis is not the same as sleep or a form of sleepwalking.

Hypnotic Trance Theory

Currently, two major theoretical perspectives exist for explaining the mechanisms behind the effects of hypnosis. One perspective, known as the hypnotic trance theory, assumes that hypnosis represents a special state of consciousness that promotes a high level of suggestibility and changes in bodily experiences. Under this special state, the theory maintains, the hypnotized person may be able to do things that he or she could not do under a normal state of consciousness. For example, the person might regress to childhood and vividly remember or act out events that have been repressed or put out of consciousness for an extended period
of time. While in the trance, participants may be instructed to feel little or no pain or to perform acts that they are unable to do when not hypnotized. The hypnotic trance theory holds that individuals can be instructed or trained to sense, feel, smell, see, or hear things that are not possible during normal consciousness. For some individuals, hypnosis can substantially improve their ability to remember things. Generally, trance theory contends that the deeper the “hypnotic trance,” the more intense, detailed, and vivid a scene becomes to the participant. Historically, the most influential perspective on hypnotic trance theory was from Ernest Hilgard (1986). The research evidence supporting this position, however, is very slim and overall not very convincing.

Cognitive-Behavioral Viewpoint

The second major theory is referred to as the cognitive-behavioral viewpoint, which contends that respondents are not in a special state of consciousness when they appear hypnotized. Rather, hypnosis is a product of certain attitudes, motivations, and expectancies toward the “hypnotic state”—not a “true” alteration of consciousness. According to the cognitive-behavioral viewpoint, people who have a positive attitude toward hypnosis and are highly motivated to be hypnotized actually role-play the “trance” by closely following many of the suggestions provided by the hypnotist. For example, when the hypnotist suggests to them that they feel relaxed, they will try to—and probably will—feel relaxed. Or, when the hypnotist suggests their eyes will tear up from staring so long at the target, their eyes will begin to tear.

Theodore X. Barber, one of the chief spokespersons for the cognitive-behavioral perspective (T. X. Barber, Spanos, & Chaves, 1974), hypothesized that the good hypnotic respondent is one who not only has the proper mixture of attitude, motivation, and expectancy, but also has the ability to think and imagine with the hypnotist. According to Barber, the good hypnotic respondent is similar to a person watching a captivating video or movie. This person experiences—sometimes intensely—the emotions and actions portrayed by the actors on the screen. In this sense, the “hypnotized” person is mesmerized by the imagery created in his or her mind.

Martin Orne (1970; Orne, Dinges, & Orne, 1984), who was one of the 20th century’s foremost authorities on hypnosis, hypothesized a similar viewpoint to the cognitive-behavioral theory, arguing that role-playing accounts for much of the so-called hypnotic phenomenon. That is, participants act the way they think a truly hypnotized individual would act. Orne believed that “a prerequisite for hypnosis is the willingness to adopt the role of the ‘hypnotic subject,’ with its implicit social contract for uncritical acceptance of appropriate suggestions administered by the hypnotist” (Orne et al., 1988, p. 23). The “hypnotic subject” is willing to relinquish his or her sense of reality temporarily, hold any critical thinking in abeyance, and concentrate on what the hypnotist says. He called this state “trance logic” to describe the behavior of hypnotized participants who appeared to display a “peaceful coexistence between illusion and reality” (Kihlstrom, 2001, p. 754). Orne had found in his research that the material described under so-called hypnotic trances is often inaccurate and embellished with many intervening events that occur between the initial incident and the hypnotic session. It appears that some hypnotic participants are highly susceptible to distortions, suggestions, and leading questions posed by the hypnotist. Particularly if the interrogator is a police officer convinced of the powers of hypnosis, he or she is apt to inadvertently suggest events, details, or behaviors that were not present during the crime. The hypnotized witness or victim, eager to please the interviewer, can easily imagine a scene decorated with subjective fantasies and thoughts in line with the suggestions of the questioner. Under these suggestible conditions, the hypnotized participant may begin to be convinced of the accuracy and power of hypnosis to the same degree as the hypnotist. Furthermore, the participant also may become increasingly convinced of the accuracy of his or her revised account of the imagined scene, in contrast to the original (pre-hypnotic) account.
Hypnosis in Forensic Settings

Orne became well-known as a result of his skillful evaluation of Kenneth Bianchi, the accused “Hillside Strangler” who killed women and girls in the Greater Los Angeles area in the late 1970s. Bianchi maintained under hypnosis that his alter personality, “Steve Walker,” had committed the murders. Bianchi’s lawyer then argued that because Bianchi was suffering from a multiple personality disorder, he should not be held responsible for the serial murders. Ultimately, he was hoping for a successful insanity defense. Orne, however, was able to convince the court that Bianchi was merely playacting the different personalities while pretending to be hypnotized. Bianchi, because of Orne’s testimony, dropped the multiple personality act and agreed to testify against his co-murderer, Angelo Buono, and to accept a life sentence without the possibility of parole. Orne’s critical perspective on forensic hypnosis influenced more than 30 state Supreme Court decisions as well as the U.S. Supreme Court. He also developed guidelines for forensic hypnosis that were adopted by the Federal Bureau of Investigation (Kihlstrom, 2001).

When forensic hypnosis is used as a method to recall events that may be anywhere from several hours to several years old, the fundamental assumption is that human memory functions like a videotape: All the events and details are stored completely and accurately and, with the proper procedure, can be recalled or brought to consciousness intact. This assumption, however, is without much research support (Bartol & Bartol, 2004). Human perception and memory are flawed and permeated with inaccuracies and distortions. The frailties of perception and memory, combined with the highly suggestive medium under which hypnosis is conducted, provide a situation in which critical inaccuracies have a high probability of occurring. Memory recall under hypnosis is extremely malleable and manipulatable, especially in highly suggestible respondents (Haber & Haber, 2000). Therefore, leading or suggestive questions may have a substantial effect on the respondents’ recall of events after they are hypnotized (Kebbell & Wagstaff, 1998). The danger is particularly high when the forensic examiner is untrained or uninformed about the power of questioning suggestible respondents. In addition, the tendency to make up things to fill the gaps in memory appears to be greater under hypnosis (Orne et al., 1988).

Despite the above findings, some recent research is more favorable toward the use of hypnotic techniques, particularly in the investigative phases of a case. Scheflin (2014) maintains that police have documented many cases in which hypnosis was crucial to the solving of criminal cases. Wagstaff (2008) notes that in some situations, hypnosis can enhance one’s memory, and Webster and Hammon (2011) note that enhanced memory recall is particularly likely to occur for material that is personally meaningful. On the other hand, hypnosis also may bring about an increase in false recollections and misinformation.

It is important, therefore, that the forensic psychologist be aware of the research and the many dangers of poorly conducted interrogations or interviews when hypnosis is used, as well as the possible benefits of conducting interviews that retain some elements of hypnosis—such as relaxation techniques or allowing witnesses and victims to give their account of an incident freely and without interruption. Scheflin, Spiegel, and Spiegel (1999) emphasize that “When hypnosis is used for forensic purposes, strict guidelines must be scrupulously followed” (p. 491). As pointed out by some experts in the field, “few would contest the claim that hypnosis produces an admixture of accurate memories, and that any increase in memories is typically accompanied by inaccurate memories that equal or surpass the volume of accurate memories” (Lynn, Boycheva, Deming, Lilienfeld, & Hallquist, 2009, p. 94). Moreover, hypnosis can enhance the confidence in inaccurate memories as well as accurate ones (Lynn et al., 2009). The danger in forensic settings is that witness confidence, pertaining to inaccurate memories, can potentially lead to wrongful convictions.

In sum, hypnosis can be a useful tool if used properly and with the understanding that it is no shortcut or replacement for standard investigative procedures (Scheflin, 2014;
After extensively reviewing the literature on the topic, Wagstaff (2008) concluded that, despite many misconceptions about hypnosis, it should not be banned outright as an investigative technique. Indeed, some of the procedures associated with hypnosis, like meditation, relaxation, and eye closure, can yield useful information. It can help, for instance, when trauma has occurred, and it is difficult for the person to mentally or physically revisit the scene without the relaxation and concentration states that can be accomplished through this procedure.

EYEWITNESS EVIDENCE

Police officers routinely interview witnesses to a criminal incident. Typically, this task requires attempts at some form of identification of the offender, especially the facial and other physical features, but also of the events that transpired before, during, and after the incident. These tasks require the accurate recall and recognition of something or someone the witness has observed, often for the first time and often under stress.

The identification of suspects by witnesses begins as soon after the offense as possible. Police investigators usually obtain verbal descriptions of the perpetrators from witnesses or show them photographs to obtain a preliminary identification. In some instances, the police will have witnesses look over photos of individuals with previous criminal records, either to identify the specific offender or to obtain an approximation of the offender’s appearance. Police agencies routinely ask witnesses to examine a group of photographs (photo boards, photo spreads, photo arrays, mug shots) that are fairly well matched to the physical characteristics described by the witnesses, including the person the police suspect to be the guilty party if they have a suspect in mind or in custody.

Eyewitness Testimony

Before we proceed, it is important to realize that eyewitness testimony is one of the most influential pieces of evidence admitted into the courtroom, especially if the witness claims to have actually seen an offender committing a crime. Jurors appear to have a strong tendency to accept eyewitness testimony at face value, even if the testimony is contradicted by other types of forensic evidence (e.g., fingerprints, blood type, DNA). “Few categories of evidence are as compelling to members of a jury as eyewitness evidence, a fact long acknowledged by judges” (Semmler, Brewer, & Douglass, 2012, p. 185).

Importantly, eyewitness perception and memory are among the most heavily studied processes in experimental psychology and are extremely relevant to the practice of forensic psychology. For over 100 years, psychological research has continually underscored the fact that memory and recall of past events are at least partially unreliable and highly susceptible to numerous influences. In reference to eyewitness testimony in forensic settings, Frenda, Nichols, and Loftus (2011) write, “In the wake of more than 30 years of research, an ever-growing literature continues to demonstrate the distorting effects of misleading postevent information on memory for words, faces, and details of witnessed events” (pp. 20–21). Today’s researchers continue to find new paradigms for studying the limitations on memory as well as methods for improving it (e.g., Luke, Crozier, & Strange, 2017; Strange & Takarangi, 2012). (See Perspective 4.1 in Chapter 4, in which Dr. Strange describes her memory research.)

In two surveys conducted by Simons and Chabris (2011), nearly 40% of those surveyed believed that the testimony of a single confident eyewitness should be enough to convict a criminal defendant. Simons and Chabris conclude, “This discrepancy between science and popular beliefs confirms the danger of relying on intuition or common sense when evaluating claims about psychology and the mind” (p. 6). Other studies find that U.S. law students and undergraduate students have very limited knowledge about factors that affect the reliability of eyewitness
memory (Wise & Safer, 2010). These findings strongly suggest that the same misconceptions also exist in jurors and perhaps many court officials. In a study by Loftus (2013), she found that potential jurors held many beliefs that are contradicted by psychological science. Interestingly, it appears that U.S. defense attorneys are more knowledgeable about eyewitness memory than prosecuting attorneys or judicial personnel, and their knowledge corresponds well with that held by memory experts (Magnussen & Melinder, 2012; Wise, Pawlenko, Meyer, & Safer, 2007; Wise, Pawlenko, Safer, & Meyer, 2009).

In recent years, Loftus (2013) identified a shift in research on eyewitness memory. She writes that the contemporary research is not so much about the factors that affect the accuracy of eyewitness testimony anymore, but rather “about whether people in general and jurors in particular are knowledgeable about those factors” (p. 557).

Eyewitness research also has shown that suggestive questioning and suggestive lineup procedures can have enormous effects on eyewitness testimony (Wells & Loftus, 2013). In many cases, the eyewitness is highly inaccurate about what he or she saw and heard. “Memories for events that never occurred are readily confused with memories for actual events, and mistaken eyewitness identifications are readily confused with accurate eyewitness identifications” (Wells & Loftus, 2013, p. 627). Unfortunately, law enforcement, prosecutors, and the courts have been reluctant to utilize the rapidly emerging eyewitness research by forensic and research psychologists. Law enforcement officers, for example, often do not know how to interview eyewitnesses without contaminating their observations by asking leading and highly suggestive questions.

Loftus (2013) notes, however, that things are beginning to change, with the biggest boost to public appreciation of eyewitness research coming through forensic DNA testing, as indicated earlier in the chapter. Courts also are increasingly more willing to allow experts on eyewitness research to testify in criminal cases, although typically only if the defendants are able to afford them (see, for example, Focus 3.3).

Cognitive Interview

The cognitive interview (CI), described briefly earlier in the chapter, represents a significant improvement in eliciting relevant information from witnesses or victims. In the typical (non-cognitive) interview, the police interviewer dominates the conversation and the interviewee plays a subordinate role. The police will ask a number of specific, short-answer, true or false questions until the interviewer has exhausted his or her list (Fisher & Geiselman, 2010). In addition, the interviewer will often interrupt to ask follow-up questions which are usually leading or suggestive. In many cases, the interviewer is focused on completing the predetermined written checklist required by the department.

In order to obtain as much pertinent information about the incident as possible, the CI takes a very different approach. For example, the interviewer is encouraged to allow the witness to dominate the narrative as much as possible. In CI, the investigative interviewer skillfully and gently guides the witness (or victim) through a number of steps (Fisher & Geiselman, 2010). During the early stages of the interview, the interviewer tries to build rapport with the witness and allows and encourages him or her to describe their emotional feelings at the time of the incident. The interviewer then uses four retrieval prompts designed to restore the original state of the experience. The first prompt is to ask an open ended question of what happened, without interruptions. In the second prompt, the witness or victim is asked to close his or her eyes and try to recount the incident again. Studies of the CI have revealed that eye closure leads to more focused concentration and better accuracy (Vrij, Mann, Jundi, Hillman, & Hope, 2014). Vrij et al. write, “eye closure frees up cognitive resources that would otherwise have been involved in monitoring the environment and subsequently improves memory” (p. 861). The third prompt requires the witness to retell the story in reverse order, from the end to the beginning. The reverse order helps improve the memory of the incident as well as correct errors
of omission. The fourth prompt asks the witness to describe the event from the perspective of others (Memon, Meissner, & Fraser, 2010).

According to Fisher and Geiselman (2010), the CI has demonstrated effectiveness in improving witness memory in many studies in the United States, England, Germany, and Australia. It has been shown to be effective across cultures, types of witnesses (young, elderly, cognitively impaired) and kind of event to be recalled (crime, accident, daily activities).

Identifying the Face

As described above, courts—particularly criminal courts—rely heavily on eyewitness recognition as critical evidence either for or against the defendant. An accumulation of scientific studies, however, demonstrates that the accurate recognition of a relatively unfamiliar face is an extremely complex and error-ridden task (Bartol & Bartol, 2004, 2013). Research also reveals that the accuracy of facial recognition depends greatly on the type of face being recalled. For reasons unknown, some faces are easier to identify than others. Highly unique faces, for example, are better recognized than plain or average faces (Chiroro & Valentine, 1995;
Faces that are high and low in attractiveness also are easier to recognize than faces judged to be of medium attractiveness (Shepherd & Ellis, 1973). Because attractiveness is subjective, this may not be a helpful finding. Not surprisingly, the longer a person views a face, the better its recognition at a later time (MacLin, MacLin, & Malpass, 2001).

In some cases, computerized or artist drawings of the face from descriptions supplied by the eyewitnesses or victims are done to help identification—these are called facial composites. However, studies have shown that constructing and viewing facial composites may hinder identification accuracy and one’s memory for the suspect’s face (Topp-Manriquez, McQuiston, & Malpass, 2016).

Unconscious Transference

On occasion, witnesses identify persons they have seen at some other time and place as the perpetrators of a more recent crime. This phenomenon, called unconscious transference, occurs when a person seen in one situation is confused with or recalled as a person seen in another situation. It is called “unconscious” because people do not realize they are doing it. A witness may have had limited exposure to a face (e.g., in a grocery store) and, on seeing the face at a later time, may conclude that it is the offender’s. Loftus (1979) believes that unconscious transference is another feature of the fallible and malleable nature of human memory, where earlier input becomes “tangled” with later input. As we noted above, research has continually shown that human memory is not like a videotape or smartphone that stores things exactly as seen. Rather, memory is continually changing or being revised in line with our cognitive beliefs and versions of the world. Most psychologists would agree that “memory is a risky route to figuring out the past” (Turtle & Want, 2008, p. 1245).

The phenomenon of unconscious transference illustrates that it is highly possible that a fast-food worker who is witness to a robbery of the restaurant might incorrectly identify as the perpetrator an occasional customer who may have some of the features of the actual culprit. However, for unconscious transference to occur, the previous encounters with the innocent face must have been relatively brief. Frequent encounters with customers by the witness are unlikely to trigger unconscious transference involving those particular customers.

Own-Race Bias (ORB)

There is now considerable evidence that people are much better at discriminating between faces of their own race or ethnic group than faces of other races or ethnic groups (Bartol & Bartol, 2015). Researchers call this phenomenon own-race bias (ORB), or it is sometimes referred to as “own-race effect” or “cross-race effect.” Scientific research across a wide band of cultures and countries has documented ORB, and it exists across diverse ethnic groups (Hugenberg, Young, Bernstein, & Sacco, 2010; Meissner & Brigham, 2001; Sporer, 2001). Unfortunately, ORB accounts for many identification errors, or false alarms. False alarms refer to any situation where a witness identifies the wrong person as the offender. Although the frequency of false alarms seems to be increasing in our society, racial attitudes or prejudices do not seem to account for this phenomenon in a majority of cases (Meissner & Brigham, 2001). Nonetheless, it is disturbing that such a high number of DNA exonerations based on mistaken identification involved that of black suspects (Innocence Project, 2014).

Although there are several possible explanations for ORB, the most popular is called the differential experience hypothesis. The hypothesis states that individuals will have greater familiarity or experience with members of their own race and will thus be better able to discern differences among its members. Furthermore, it is the frequency of meaningful and positive contacts with other races that develops the skill to differentiate among racial or ethnic faces (MacLin & Malpass, 2001; Yarmey, 1979). For example, having close friends of other races or
ethnicities is more likely to promote better facial recognition than having frequent but casual exposure. Furthermore, additional support for the differential experience hypothesis is provided by studies that show that training in face familiarization significantly reduces the other-race effect (Hancock & Rhodes, 2008; Sangrigoli, Pallier, Argenti, Ventureyra, & de Schonen, 2005; Tanaka & Pierce, 2009). The typical witness to a crime has not had such training, however.

In summary, the research literature is consistent in concluding that people have difficulty recognizing unfamiliar persons of other races. Moreover, this phenomenon may be far too often responsible for the misidentification of numerous suspects who were later convicted but ultimately cleared by DNA evidence.

**PRETRIAL IDENTIFICATION METHODS**

Forensic psychologists have long known that pretrial identification methods are especially vulnerable to biases and error, and many forensic researchers emphasize that mistakes made by victims or witnesses are honest ones. They truly believe that the individuals they are identifying are the culprits or that the events they are recalling are accurate. However, researchers have discovered that the exact methods used by police, ranging from very blatant practices to more subtle innuendo, can influence the witness's identification. One of the most heavily studied topics is the suspect lineup.

**Lineups and Photo Spreads**

When police have a suspect in custody, it is not unusual to place the suspect in a lineup with typically two to five other individuals, in the hope that a victim or other witness will be able to identify the suspect as the perpetrator. (See Photo 3.1.) This is called a simultaneous lineup. The individuals also may be shown to the witness one by one, a procedure called a sequential lineup. Which lineup procedure is more accurate? As noted by Moreland and Clark (2016), early studies indicated that the sequential lineup demonstrated a large accuracy advantage over the simultaneous lineup. However, later studies, beginning in 2012, began to show that simultaneous lineups may be more accurate (e.g., Dobolyi & Dodson, 2013; Mickes, Flowe, & Wixted, 2012). At this point, “the simultaneous-sequential debate is far from settled” (Moreland & Clark, 2016, p. 280). Even more commonly, though, with or without someone in custody, police show photos or video clips of each individual, simultaneously or sequentially. As just noted, legal psychologists have traditionally recommended greater use of the sequential approach, and it is becoming more common, particularly for photo arrays (Police Executive Research Forum [PERF], 2013). Interestingly, law enforcement agencies report their most commonly used methods for eyewitness identification are the photo lineup or photo array (94.1%); show-ups (61.8%—to be discussed below); composite sketches (35.5%); mugshot books (28.8%); and the live lineup (21.4%) (PERF, 2013). Regardless of which method is used, we must keep in mind all of the previously mentioned problems with eyewitness identification (e.g., identifying a face, the fallibility of memory, own-race bias).
Legal psychologists have been particularly interested in research on the live lineup, because this is where mistaken identification seems more likely to occur. In the live lineup, the witness or victim may be influenced by the comments or behavior of police or by the construction of the lineup itself. Interestingly, courts do not necessarily rule for a defendant, even if the lineup was a suggestive one. Other factors are taken into account, such as whether the witness was confident, how much time had elapsed between the crime and the identification, and whether the witness's description of the perpetrator was consistent over time. However, the U.S. Supreme Court, in a number of cases, has ruled that a lineup may not be impermissibly suggestive.

Live lineup members in particular should fit the description the witness gave police. In other words, they should have similar characteristics—such as age, height, physical stature, race, hairstyle, and facial hair—that were included in the original witness description. It is also well-known that, before appearing in lineups, many suspects will try to change their appearance to mislead eyewitnesses, if they have the opportunity to do so (Cutler, Penrod, & Martens, 1987). If the witness remembered the offender as a 6-foot, 6-inch individual with black, curly hair and a beard, the lineup is obviously biased if only one person in five fits that description. This would be an example of composition bias.

Another area of pretrial identification that must be closely monitored is that of commitment bias. This is the concept that, when a witness has initially identified a face, even an incorrect one, he or she will be more likely to choose that face again. Commitment bias is most likely to occur when witnesses are eager to please police investigators and when they further assume that the police have good evidence against someone in the pretrial identification process. Because of commitment bias, a witness who initially identifies a suspect, but who has some doubt, is more likely to identify the suspect in subsequent exposures with greater conviction. In other words, each time the witness identifies the suspect as the perpetrator of the crime, the witness becomes more convinced that this was indeed the person who committed the crime.

The tactics taken by police during the lineup proceeding also may influence the witness or victim. For example, an officer may subtly nod or may ask, “Are you sure?” This behavior communicates approval or disapproval of the choice made. To avoid this possible influence, legal psychologists (e.g., Steblay, Dysart, & Wells, 2011; Wells, 1993) advocate that the person conducting the lineup not be aware of the identity of the suspect—an approach called the double-blind lineup. If the lineup conductor is not aware of the identity of the suspect, he or she cannot give subtle cues to the witness or victim.

One controversial pretrial identification procedure is called the show-up. “This is an identification procedure in which police present a single suspect to the eyewitness(es) to see if the eyewitness(es) will identify that person as the perpetrator” (Wells, 2001, p. 795). Unlike the lineup, there are no distractors or foils in a show-up procedure. A distractor or foil is anyone in the lineup who is not the suspect. A show-up is legal in the United States as long as it occurs soon after the offense (within hours) or under circumstances that would make a lineup impracticable or impossible. For example, if a crime victim is hospitalized and not likely to live, police may bring in a suspect for identification (Stovall v. Denno, 1967). This is not a frequent scenario, though. Show-ups are more likely to occur when police drive a victim by someone on the street and ask whether he or she is the perpetrator, or when they interview a witness and point out another person with whom police are talking. In 2012, the U.S. Supreme Court heard a case (Perry v. New Hampshire) in which a witness identified a suspect from her apartment window, while he was handcuffed by police. In an 8–1 decision, the Court ruled that this was not appropriately set up by police. We highlight this case again in Chapter 4. As noted above, the PERF (2013) survey indicates that show-ups are a very common method of securing eyewitness identification nationwide. Research indicates that show-ups are far more likely to lead to mistaken identification than lineups (Wells, 2001). This is because in a lineup, the error of mistakenly identifying a suspect is spread out among the foils and distractors. Even in a sequential lineup, the witness is aware that other possibilities will be presented. In the show-up situation,
on the other hand, there is only one choice, right or wrong. To confirm and formalize the identification, show-ups are often followed by a live lineup once the suspect is in custody. Although this is a reasonable precaution, confirmation bias is likely to be at work. The victim or witness has already identified an individual as the perpetrator and is unlikely to change his or her identification at a later time. Interestingly, in the New Hampshire case mentioned above, the witness who identified the suspect from her apartment window was unable to pick him out of a photo array later at the station. Nonetheless, the initial identification was allowed into evidence.

In 2001, the American Psychology-Law Society, in an effort to make certain that forensic psychologists and personnel in the criminal justice system were aware of ways to improve lineup procedures, published a comprehensive document known as the “Police Lineups” white paper (Wells, 2001). To protect the rights of everyone accused of crime, the white paper made four recommendations for implementing valid procedures in conducting lineups or photo spreads (see Wells et al., 1998). First, the panel recommended that the person putting together the lineup or photo spread know which member is the suspect; however, the person administering or conducting the lineup should not know. In addition, the eyewitness should be informed that the person administering the lineup does not know which person is the suspect in the case. This recommendation is designed to prevent the witness from looking for subtle clues or identifying information from the officer administering the lineup. This has come to be called the double-blind lineup, mentioned above. It indicates that neither the witness nor the officer administering it is aware of the true suspect. Second, eyewitnesses should be clearly told that the suspect might not be in the lineup or photo spread. Under these conditions, the witness will not feel compelled to make an identification if he or she does not believe the suspect is in the lineup. Third, the suspect should not stand out in the lineup or photo spread as being clearly different from the distractors, based on the eyewitness’s (or eyewitnesses’) previous description. Fourth, a clear statement should be taken from the eyewitness at the time of identification, prior to any feedback from the police that would inform the witness whether he or she had chosen the “right” suspect. This last recommendation is based on the observation that witnesses are often susceptible to inadvertent or intentional communication about the suspect during the lineup or immediately after it occurs. Findings from the white paper were incorporated into a 44-page government guide for law enforcement officers working with eyewitness identification (Reno, 1999).

Since these recommendations were made, numerous forensic psychologists, legal scholars, and prisoner advocacy groups have pushed for changes in the procedures used in police lineups. The sequential lineup is preferred by many, but other researchers are concerned that it may result in guilty persons not being identified because the witness may believe a better match will appear (S. E. Clark, 2012). Many agencies thus allow the witness to go through the photo array or view the live sequential lineup more than once. However, some research suggests that care must be taken with allowing multiple laps through the choices because these multiple viewings (more than two) lead to guessing and placing innocent suspects at risk (Horry, Memon, Wright, & Milne, 2012; Steblay, Dietrich, Ryan, Raczyński, & James, 2011).

Supporters of sequential lineups also assert that the double-blind procedure, whether the lineup is sequential or simultaneous, has the greatest likelihood of avoiding misidentification and protecting suspects who are truly innocent. As noted previously, if the person conducting the lineup is unaware of the identity of the suspect, he or she cannot give even subtle cues to the witness. At least two states (New Jersey and North Carolina) and several jurisdictions (e.g., Madison, Wisconsin; Boston, Massachusetts; Virginia Beach, Virginia) have implemented the sequential double-blind as standard procedure in lineups (Innocence Project, 2010). Approximately one third of jurisdictions that use photo or live lineups now use a sequential procedure (PERF, 2013), but most of these do not use the double-blind approach, apparently because it is difficult to find an officer who does not know the identity of the suspect. Interestingly, most agencies have no written policies for conducting eyewitness identification procedures, although large agencies (with 500 or more sworn officers) are more likely to have such a written policy (PERF, 2013).
SUMMARY AND CONCLUSIONS

The psychology of investigations is a fertile area for research and practice. It began officially in the United States with the work of the FBI’s Behavioral Science Unit and in the United Kingdom with the investigative psychology propounded by psychologist David Canter. It focuses on identifying features of a crime and likely characteristics of its perpetrator. The generic term profiling, as used in this chapter, is subsumed under this topic, but many psychologists who consult with police during the crime-solving process prefer not to be called “profilers.” We discussed five overlapping forms: crime scene profiling (often called criminal or offender profiling), suspect-based profiling, geographical profiling, psychological profiling, and the psychological autopsy. It is important to realize, though, that these terms are very often used interchangeably in the literature. In addition, profiling may be used in areas that do not involve criminal investigation, particularly in the case of psychological profiling and psychological autopsies.

Crime scene profiling, though not a dominant activity performed by most forensic psychologists, has gained considerable media attention. If done correctly, it can provide statistical probabilities of features of an individual, including an offender, but it is far from a foolproof procedure. Again, many if not most forensic psychologists who engage in this endeavor prefer to call themselves behavioral analysts, and there is continuing interest in promoting a more scientific approach to the procedures they employ. The global term “investigative psychology” is often used to emphasize this.

Suspect-based profiling—which gathers together characteristics most likely to be possessed by someone committing a certain crime—is extremely controversial because the characteristics used have included race, ethnicity, and religious affiliation. When these characteristics are at the forefront of the profiling activity, they are illegal.

Geographical profiling analyzes spatial characteristics to yield probabilities of a perpetrator residing or offending in a particular location. It is used primarily to solve serial crimes, in which a pattern of offending occurs over time. It is more likely to yield positive results when combined with criminal profiling, although we must caution that the scientific status of the latter remains in question.

Psychological profiling focuses on describing the characteristics of a known individual or individuals, and it may or may not have anything to do with crime. A psychological profile may be extensive, based on a multitude of documents, reports, psychological measures, and interviews with the person or others who know the person, or it may be quite simple, based on just a few measures. Mental health professionals have offered psychological profiles of individuals ranging from American presidents to notorious serial killers. These profiles may be interesting to read, but they are rarely submitted to empirical scrutiny.

Psychological autopsies—more formally called reconstructive psychological evaluations—are performed after a person has died and the manner of death is uncertain or equivocal. The psychologist conducting the autopsy tries to reconstruct the victim’s behavior and thought processes leading up to the death. This procedure is often used in cases of apparent but questionable suicide. As yet, there is no established, standard method for conducting a psychological autopsy, and its validity has yet to be demonstrated.

We discussed some of the reasons profiling is difficult. Chief among these is the fact that much of human behavior is not consistent across different situations. Dynamic risk factors of an individual, particularly those that are acute—such as mood swings and drug-induced effects—contribute to this lack of consistency. In addition, crime scene evidence does not necessarily relate to specific psychological characteristics of the perpetrator. Although some professional profilers are cautious about the power of their predictions, others are too ready to rely on unsubstantiated assumptions, some of which are based on outdated interpretations of personality theory. In sum, profiling—though fascinating to the public—is an enterprise that must be approached with extreme caution, at least until research demonstrates that it has greater predictive validity.

The psychology of investigations also includes research and practice in broader areas, such as interviewing and interrogation, the detection of deception, polygraphy, forensic hypnosis, facial recognition, eyewitness identification, and lineups. Essentially, we have included in this chapter a variety of areas in which practicing and research psychologists have much to offer law enforcement agencies in their investigations of crimes.

The methods used by police in interviewing and interrogating witnesses and suspects have received considerable attention in forensic psychology. Three main problems can be identified: Many people, including juveniles, do not understand their constitutional rights, many confess to crimes because they are coerced, and some people confess to crimes they have not actually committed. Legal psychologists have been critical of the dominant method of interrogation advocated in the United States, and
many are recommending a shift to a less confrontational form of questioning in order to lessen the likelihood of coercion and false confession. Researchers and practitioners in other Western nations (e.g., Canada, the United Kingdom, Australia) have been prominent in developing methods of interviewing that emphasize interaction rather than confrontation and encourage interviewees to tell a story rather than respond to forceful questioning. The PEACE model, HUMINT interrogations, and the cognitive interview are illustrations of these alternative methods.

Researchers also have looked carefully at the ability of anyone—including police officers—to detect deception in others. Traditional beliefs about nonverbal behavior have given way to beliefs that other methods are more fruitful. For example, rather than focusing on a suspect’s fidgeting behavior, interviewers could increase the cognitive load placed on him, such as by asking him to review his actions on a given day in backward sequence. Some legal psychologists also note that encouraging someone to tell his or her story in an open-ended manner provides more information that can then be reviewed for accuracy.

The polygraph, as a method of detecting deception, is used in a wide variety of criminal and civil contexts. In law enforcement, it is used primarily in the selection of candidates for law enforcement positions and much less in criminal investigation because courts have generally found its results inadmissible. Police may still administer polygraphs if suspects willingly take them, however. The dominant method is apparently the CQT, though questions are raised about its validity. Many researchers favor the GKT, but it is an impractical tool because it requires that the polygrapher know details of the crime that are not generally known to the public. Results from polygraph tests are not admitted into courts against the wishes of criminal defendants, but they have been allowed in some courts to support a defendant’s contention that he or she did not commit the crime. It appears that the polygraph is also being used more extensively in counterintelligence and by federal agencies than it has been in the past. Polygraphs are also used to monitor offenders in the community who are on probation or parole; this is particularly the case for sex offenders. Like the other techniques discussed in this chapter, the polygraph has not garnered impressive research results with respect to reliability and validity. Nevertheless, some researchers do support its use in limited situations and when administered by highly trained polygraphers.

We ended the chapter with a discussion of forensic hypnosis, eyewitness identification, and the construction of police lineups. Hypnosis is a controversial topic, particularly when used to elicit repressed memories of traumatic events in victims of crime. It may also be used to enhance recall of nonvictim eyewitnesses to a crime. Although the weight of the scientific evidence is still very much against its use, research over the past decade has begun to challenge early assumptions.

One of the most consistent findings in experimental psychology is the fallibility of memory and its impact on eyewitness recollection of events. For over 100 years, researchers have documented that the testimony of eyewitnesses, especially witnesses to traumatic events, may be believable, but it is often not reliable. Multiple witnesses to one event often report different versions of the event, even when they firmly believe their own version is the accurate one. In the criminal justice area, errors in eyewitness recall have led to false confessions and to wrongful convictions. Continuing research in this area is gradually brought to the attention of the courts, and police are sometimes trained in more effective interviewing skills to minimize the problems in eyewitness identification.

In recent years, psychologists have made significant research contributions relating to the construction and administration of police lineups, but some of that research is equivocal. For example, while a long line of research initially supported the sequential lineup over the simultaneous lineup, recent research has challenged that, and the matter of which method is better remains unsettled. Double-blind lineups—where neither the witness nor the officer conducting the lineup is aware of the identity of the suspect—are highly recommended, though. Some research recommendations have been incorporated into government guidelines used by law enforcement officers nationwide, but many agencies do not have written policies for conducting lineups.

**KEY CONCEPTS**

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QUESTIONS FOR REVIEW

1. What three questions are central to the process of investigative psychology?

2. Distinguish among the five types of profiling covered in the chapter.

3. Distinguish between geographical profiling and geographical mapping.

4. What are the three types of false confessions?

5. What suggestions have psychologists offered for improving the police interviewing and interrogation process?

6. In light of research findings on deception, how can investigators best detect deception on the part of persons being interviewed?

7. List any five findings from the research on (a) the polygraph and (b) hypnosis.

8. List five findings from the research on eyewitness identification.

9. What recommendations were made by researchers regarding lineups and photo spreads in the “Police Lineups” white paper to increase the reliability of identifications made in these lineups?

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