

# 5



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## Criminal Profiling and Psychological Autopsies

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**M**uch of the public was introduced to the practice of criminal profiling by the Academy Award–winning film *The Silence of the Lambs*. In that film, a young FBI agent named Starling and her boss are on the trail of a serial killer who murders young white women and cuts away large pieces of their skin. In one scene, Starling’s skills are tested when her boss asks her to look at photographs of the victims and speculate about the killer’s characteristics:

**Boss:** Look at these [photographs], Starling. Tell me what you see.

**Starling:** Well, he’s a white male; serial killers tend to hunt within their own ethnic groups. He’s not a drifter; he’s got his own house somewhere, not an apartment.

**Boss:** Why?

**Starling:** What he does with them takes privacy. He's in his thirties or forties. He's got real physical strength, combined with an older man's self-control. He's cautious, precise. He's never impulsive; he'll never stop.

**Boss:** Why not?

**Starling:** He's got a real taste for it now; he's getting better at his work.

**Boss:** Not bad, Starling.

Starling's impromptu profile of the killer turns out to be dead-on. But of course, she's a fictional character, and *The Silence of the Lambs* is only a movie. Is it really possible to make valid inferences about a criminal's age, race, gender, living circumstances, and personality based only on information from a crime scene?

## ■ The Process of Profiling

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**Profiling** is the process of drawing inferences about a criminal's personality, behavior, motivation, and demographic characteristics based on crime scenes and other evidence. The techniques of criminal profiling were pioneered by the FBI's Behavioral Science Unit (BSU) and have been used in the United States, Canada, the United Kingdom, Sweden, Finland, Germany, and the Netherlands (Fallon & Snook, 2019). Profiling techniques have been most famously applied to cases involving **serial killers**—murderers who kill three or more people in separate events with a cooling-off period between murders (Fridel & Fox, 2018). Since developing these profiling techniques, the FBI has trained thousands of law-enforcement officers in their use.

To create a tentative description—or profile—of the criminal, profilers analyze the crime scenes, gather information about the victims, and study both police and autopsy reports. Profiles provide leads for police and help focus the efforts of investigators. For example, officers might be told to look for a white male in his 20s who works nights and lives in a particular part of a city. A profile might also be used to set a trap for the criminal. For example, if police are looking for a serial killer who preys on young female prostitutes with long dark hair, a young female officer with long dark hair may pose as a prostitute in an effort to attract and entrap the killer. In effect, a profile instructs investigators to look for a particular type of person and to ignore other types of people. A profile may also suggest questions to ask and topics to explore when questioning suspects.

Profilers emphasize the importance of the **signature** aspect of the crime—the distinctive, personal feature of the crime (e.g., a particular form of torture or a particular sexual activity) that presumably reveals the killer's personality. According to John Douglas, one of the agents who developed the FBI's system, the methods used to abduct, transport, or dispose of victims may change, but the

signature will remain relatively constant because it is “*why* he does it: the thing that fulfills him emotionally . . . the emotional reason he’s committing the crime in the first place” (Douglas & Olshaker, 1997, p. 26).

Although the profiling of serial killers has captured the imagination of Hollywood and the general public, it remains a largely unvalidated technique. The process requires a series of inferential leaps that can be succinctly summarized as moving from “what?” to “why?” to “who?” (Chifflet, 2015). That is, by closely examining the crime and the victims, the profiler is presumably able to reach conclusions about why the killer committed the crime. An understanding of *why* then leads to inferences about the perpetrator’s characteristics and identity. Unfortunately, how profilers move from raw data about a crime to a useful profile of the criminal is neither systematic nor clearly articulated. According to Douglas:

The key attribute necessary to be a good profiler is judgment—a judgment based not primarily on the analysis of facts and figures, but on instinct. . . . and ultimately, it comes down to the individual analyst’s judgment rather than any objective scale or test. (Douglas & Olshaker, 1997, p. 15)

He further explains that

it’s very important to get into the mind of not only the killer, but into the mind of the victim at the time the crime occurred. That’s the only way you’re going to be able to understand the dynamics of the crime—what was going on between the victim and the offender. (p. 17)

Indeed, much of the mystique of the profiling process is that it appears to rely on the skilled intuition of a particular profiler. In movie and television depictions of the technique, profilers seem to be as much psychics as investigators. They often enter a trancelike state that allows them to inhabit the mind of a serial killer, to imagine what the killer saw and felt at the time of the killing. As Douglas writes:

What I try to do is to take in all the evidence I have to work with . . . then put myself mentally and emotionally in the head of the offender. I try to think as he does. Exactly how this happens, I’m not sure. . . . If there’s a psychic component to this, I won’t run from it. (Douglas & Olshaker, 1997, p. 147)

In literary and media portrayals, profiler-heros arrive at the scene of a stalled murder investigation, immerse themselves in the details of gruesome crimes, and use mysterious psychological methods to infiltrate the mind and motivations of the killer. Empowered by the profiler’s special insights, investigators capture the killer (Gregoriou, 2011). Many first-person accounts of profiling written by former FBI agents also follow a formula: a narrative of the case to be solved, a description of the profile developed by the FBI to assist investigators, a comparison of the characteristics of the actual killer with the profile, and a claim of astonishing accuracy. But stories and case studies do not constitute real evidence of effectiveness. Systematic research is required to demonstrate the usefulness of profiling or any other technique. This chapter describes several actual criminal profiles and summarizes research on the effectiveness of profiling.

## ■ Three Famous Profiles

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The 1888 case of “Jack the Ripper” (who murdered multiple women in London, England), the case of the Olympic bomber (who exploded a bomb at the 1996 Summer Olympics in Atlanta, Georgia, killing three people and injuring 150 others), and the case of the “Mad Bomber” (who planted more than 30 bombs in New York City in the 1940s and 1950s) are three of the more notable cases involving criminal profiling.

### Jack the Ripper

In 1888, Dr. Thomas Bond formulated what might be considered the first criminal profile (Rumbelow, 1975). In that year, the serial killer who has come to be known as “Jack the Ripper” terrorized the East End of London, strangling and slitting the throats of at least five prostitutes (the exact number is a matter of some controversy). The murders were daring and gruesome: The women were attacked and killed on public streets, their bodies were mutilated, and in some cases, internal organs were removed and taken from the crime scene. The still-warm corpses were discovered lying in the streets soon after the ripper had fled the scene. Dr. Bond performed autopsies on two of the victims. Here are his speculations about the physical and psychological characteristics of the ripper based on the characteristics of the crimes (we have added the likely bases for these speculations in parentheses):

- “A man of great physical strength.” (*He managed to swiftly subdue his victims; none were able to escape or successfully call out for help.*)
- “A man of great coolness and daring.” (*His savage crimes were committed efficiently and in public spaces where they could have been witnessed by passersby.*)
- “The murderer in external appearance is quite likely to be a quiet, inoffensive looking man probably middle-aged and neatly and respectably dressed.” (*He managed to enter and exit the crime scene without detection, so he apparently blended in and did not call attention to himself.*)
- “He must be in the habit of wearing a cloak or overcoat.” (*It would have been impossible to kill and mutilate his victims swiftly without getting blood on his hands and clothes, and a large cloak or coat would hide the blood.*)
- “[S]olitary and eccentric in his habits, also he is most likely to be a man without regular occupation.” (*Someone capable of such depravity would have difficulty interacting with others without raising suspicion or discomfort.*)

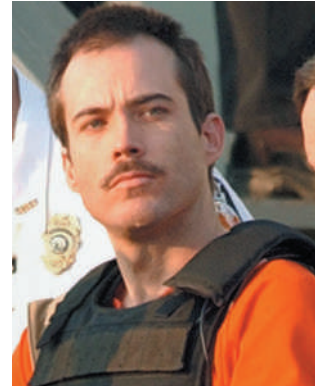
Unfortunately, Jack the Ripper was never caught, so we cannot assess the accuracy of Bond’s pioneering profile. However, it appears to be the first systematic profile offered to assist police in a criminal investigation.

### The Olympic Bomber

Although profiling has been most famously applied to cases involving serial killers, profiling techniques have been used—with varying levels of success—in the investigation of many other types of crimes, including rape, arson, skyjacking, and

bombing. One notorious profile was produced in response to a bomb explosion during the 1996 Summer Olympics in Atlanta, Georgia. Based on evidence uncovered at the scene of the bombing and on their database of past bombings at public events, the FBI instructed police to search for a single, white, middle-class male with an intense interest in police work and law enforcement (the kind of person investigators sometimes call a “police buff” or “cop wannabe”). Within days, the police focused their attention on Richard Jewell, a security guard at the Olympic Park who fit the profile in every respect. Jewell became the target of intense investigation. Because of the need to reassure people that the Olympic venues were safe, Jewell’s name and photograph appeared in newspapers across the country, and his face was shown on television news programs in several countries. It appeared that the bomber had been caught.

Three months later—long after the Olympics had ended—the FBI finally admitted that investigators had uncovered no evidence linking Jewell to the bombing. Of course, the damage to Jewell’s life and reputation could not be easily undone (the 2019 film *Richard Jewell* tells the story of Jewell’s ordeal). In 1998, after much additional investigation, the FBI finally charged another man—Eric Rudolph—with the Olympic bombing. Rudolph was an antiabortion activist who was wanted in connection with the bombing of abortion clinics in two states (Sack, 1998). He evaded police for several years but was finally captured and was convicted of the Olympic bombing in 2005.



Eric Rudolph (the Olympic bomber). (Erik S. Lesser/Getty Images)

### The Mad Bomber

One of the most famous profiles ever produced was also one of the most detailed. It was used to help solve the “Mad Bomber” case in 1957. In 1940, an unexploded bomb was found on a windowsill of a building occupied by the Consolidated Edison Company. The note attached to the bomb explained: “Con Edison crooks, this is for you.” The perpetrator, who became known as the Mad Bomber, managed to terrorize the public by successfully planting (and sometimes detonating) bombs in locations dispersed across New York City (Cannell, 2018). He sent several letters and placed a few phone calls to the New York City Police Department and *The New York Times*. Just after the United States entered World War II in 1941, the Mad Bomber sent a letter to the police declaring that because of his “patriotic feelings,” he would “make no more bomb units for the duration of the war” (Brussel, 1968, p. 21). He was true to his word. No more bombs were found until 1951. But in the same letter that informed police that his patriotism had inspired him to suspend bombings, he also declared that he would later return to “bring Con Edison to justice” and make them “pay for their dastardly deeds” (Brussel, 1968, p. 23). Indeed, he planted several more bombs over the years 1951–1956.

Police were baffled. In 1956, in a desperate attempt to generate new leads, they consulted Dr. James Brussel, a prominent local psychiatrist. Brussel reviewed the bomber’s letters, as well as all the other information the police had collected, and directed the police to look for a man



George Metesky (the “Mad Bomber”). (Judd Mehlman/ NY Daily News Archive via Getty Images)

who was between 40 and 50, Roman Catholic, foreign born, single, and living with a brother or sister. He would be suffering from progressive paranoia and would be a “present or former Consolidated Edison worker.” In an especially precise but odd detail, Brussel told police: “When you find him, chances are he’ll be wearing a double-breasted suit. Buttoned” (Brussel, 1968, p. 47). The man the police eventually arrested—George Metesky—was a single, unemployed, 54-year-old former employee of Con Ed who was living with two older sisters. When the police took him into custody, he was allowed to go into his room and change from his bathrobe. He emerged from his room wearing a double-breasted blue suit—buttoned.

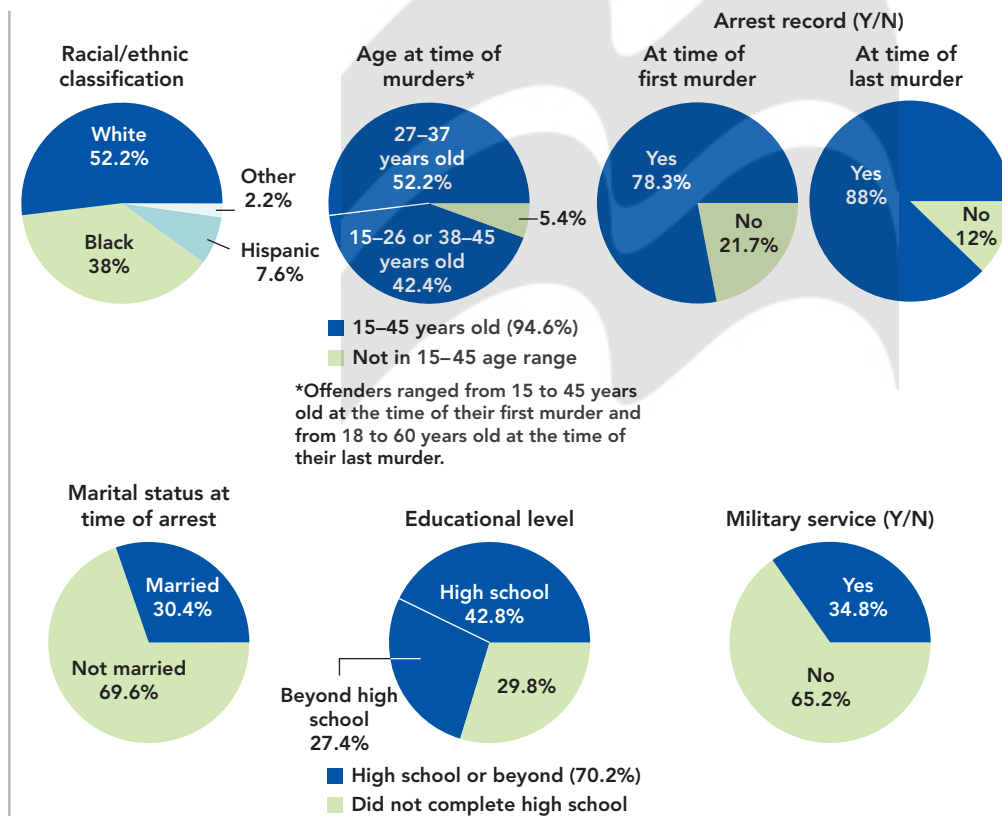
Metesky was committed to a hospital for the criminally insane. The profile of the Mad Bomber turned out to be eerily accurate and entered the folklore of profiling. However, in addition to the accurate details that may have been helpful to police, the elaborate profile constructed by Dr. Brussel also contained inaccurate details and wild psychoanalytic speculations. For example, noting that the Mad Bomber had cut open the underside of theater seats to stuff his bombs into the cushion, Brussel (1968) offered the following analysis: “Could the seat symbolize the pelvic region of the human body? In plunging a knife upward into it, had the bomber been symbolically penetrating a woman? Or castrating a man? . . . . In this act he gave expression to a submerged wish to penetrate his mother or castrate his father. Thereby rendering the father powerless. . . .” (p. 63). Brussel also noted that the handwritten *Ws* in the bomber’s letters “resembled a pair of female breasts as seen from the front and could also pass for a scrotum,” and that the bomber’s yearning for what he called “justice” was in fact a belief that people were “trying to deprive him of something that was rightfully his . . . the love of his mother” (p. 39).

It is important to note that it was not his preference for double-breasted suits that helped investigators locate George Metesky. Police did not stake out men’s haberdasheries. The crucial information in Brussel’s famous profile was that the bomber was a resentful employee or former employee at Con Edison. It was a search of employee records that led to the identification of Metesky, a worker who had been injured by a boiler accident at Con Edison. His disability claim (he believed that the accident had given him tuberculosis) was denied, and he was eventually fired from his job. It appears that Brussel’s profile merely prompted the police to do what they should have done in 1940 when the first bomb was discovered: search the employee records of Con Edison to try to identify someone who may have felt wronged by the company. Indeed, if modern-day police officers found a bomb with a note about “Con Edison crooks,” they would almost certainly examine employee records to generate a list of disgruntled current and former employees. Of course, that task is far simpler today than it was in 1957, because employment records are now preserved as computer files. The critical information that led to Metesky’s arrest was found in letters he wrote to a local newspaper. In those letters, he revealed the following details: He was injured on a job at a Consolidated Edison plant, and the injury occurred on September 5, 1931. These specific details enabled police to focus their search of the employee records (Cannell, 2018).

## Characteristics of Serial Killers

Because profiling techniques have been most notably used to find serial killers, it is useful to briefly review research on people who commit these rare but horrifying crimes. (Figure 5.1 summarizes FBI data about the demographic characteristics of serial killers.)

No list of characteristics describes every serial killer. However, research has revealed some recurring patterns. Many suffer from some form of brain injury that impairs rational thinking. Most have also experienced some combination of physical, sexual, and/or psychological abuse during childhood (Marono et al., 2020). Maladjustment during their childhood sometimes expresses itself in cruelty toward animals. Most serial killers are white males and are typically of average intelligence. They usually seek to dominate their victims before killing them. They also tend not to kill using guns, preferring more intimate methods such as strangulation, stabbing, or even torture. Before killing, they often drink alcohol or use other drugs, perhaps to desensitize themselves and lower their inhibitions.



**Figure 5.1**

**Demographic Characteristics of Serial Killers.** The information in these charts is taken from a 2019 report by the FBI. (Research from Morton et al., 2019.)

They tend to select victims of a particular type—for example, only light-skinned adolescent boys. Serial killers often show an obsessive interest in violent pornography, and serial killing is often a highly sexualized crime. A killer's violent sexual fantasies may serve as rehearsals for his crimes, and many serial killers replay past killings in their minds as a means of sexual self-stimulation (Hickey, 2016). Some have even made videotapes of their killings so that they could watch them repeatedly. To feed their fantasy life, a few keep souvenirs from their victims (e.g., a lock of hair) and collect newspaper clippings describing their crimes (Fox & Levin, 2011). However, female serial killers tend not to fit this general pattern. Instead, they tend to seek out relatively powerless victims (children, the ill, and the elderly), are more likely to kill members of their own family, and are more likely to be motivated by money (Harrison et al., 2019; Harrison et al., 2015). (For discussion of the question of whether serial killers tend to be psychopathic, see **Scientific American Spotlight 5.1**.)

Early profilers distinguished between organized and disorganized murderers (Ressler et al., 1988). **Organized murderers** are described as carefully selecting and stalking their victims and planning what they will do to them. They show patience and self-control by waiting for the right opportunity and then cleaning up evidence after the murder. They also tend to use more elaborate rituals involving torturing the victim and dismembering the corpse. In contrast, **disorganized murderers** tend to be impulsive, picking their victims at random, acting on sudden rage, or following commands to kill from voices in their heads. Disorganized killers are more likely to use any weapon that happens to be available, leave the weapon at the crime scene, and use the dead body for sexual purposes (Ressler et al., 1986). **Table 5.1** (on p. 122) summarizes the hypothesized differences between organized and disorganized killers. The upper half of the table contrasts crime-scene differences, and the lower portion of the table summarizes the inferred personal characteristics of the two types of serial killers.



(left to right) Ted Bundy, John Wayne Gacy, and Dennis Rader, three serial killers who appear to have been psychopathic. ([left] Bettmann/Getty Images; [middle] Donaldson Collection/Bureau of Prisons/Archive Photos/Getty Images; [right] Jeff Tuttle-Pool/Getty Images)

## SCIENTIFIC AMERICAN **SPOTLIGHT 5.1**

**What “Psychopath” Means** by Scott O. Lilienfeld and Hal Arkowitz

### **Charming but Callous**

First described systematically by Medical College of Georgia psychiatrist Hervey M. Cleckley in 1941, psychopathy consists of a specific set of personality traits and behaviors. Superficially charming, psychopaths tend to make a good first impression on others and often strike observers as remarkably normal. Yet they are self-centered, dishonest and undependable, and at times they engage in irresponsible behavior for no apparent reason other than the sheer fun of it. Largely devoid of guilt, empathy and love, they have casual and callous interpersonal and romantic relationships. Psychopaths routinely offer excuses for their reckless and often outrageous actions, placing blame on others instead. They rarely learn from their mistakes or benefit from negative feedback, and they have difficulty inhibiting their impulses.

Not surprisingly, psychopaths are overrepresented in prisons; studies indicate that about 25 percent of inmates meet diagnostic criteria for psychopathy. Nevertheless, research also suggests that a sizable number of psychopaths may be walking among us in everyday life. Some investigators have even speculated that “successful psychopaths”—those who attain prominent positions in society—may be overrepresented in certain occupations, such as politics, business and entertainment. Yet the scientific evidence for this intriguing conjecture is preliminary.

### **Three Myths**

Despite substantial research over the past several decades, popular misperceptions surrounding psychopathy persist. Here we will consider three of them.

**1. All psychopaths are violent.** Research by psychologists such as Randall T. Salekin, now at the University of Alabama, indicates that psychopathy is a risk factor for future physical and sexual violence. Moreover, at least some serial killers—for example, Ted Bundy, John Wayne Gacy and Dennis Rader, the infamous “BTK” (Bind, Torture, Kill) murderer—have manifested numerous psychopathic traits, including superficial charm and a profound absence of guilt and empathy. [Rader is discussed at length in the section “The Utility of Inferences” later in this chapter.]

Nevertheless, most psychopaths are not violent, and most violent people are not psychopaths. In the days

following the horrific Virginia Tech shootings of April 16, 2007, many newspaper commentators described the killer, Seung-Hui Cho, as “psychopathic.” Yet Cho exhibited few traits of psychopathy: those who knew him described him as markedly shy, withdrawn and peculiar.

**2. All psychopaths are psychotic.** In contrast to people with psychotic disorders, such as schizophrenia, who often lose contact with reality, psychopaths are almost always rational. They are well aware that their ill-advised or illegal actions are wrong in the eyes of society but shrug off these concerns with startling nonchalance.

Some notorious serial killers referred to by the media as psychopathic, such as Charles Manson and David Berkowitz, have displayed pronounced features of psychosis rather than psychopathy. For example, Manson claimed to be the reincarnation of Jesus Christ, and Berkowitz believed he was receiving commands from his neighbor Sam Carr’s dog (hence his adopted nickname “Son of Sam”). In contrast, psychopaths are rarely psychotic.

**3. Psychopathy is untreatable.** In the popular HBO series *The Sopranos*, the therapist (Dr. Melfi) terminated psychotherapy with Tony Soprano because her friend and fellow psychologist persuaded her that Tony, whom Dr. Melfi concluded was a classic psychopath, was untreatable. Aside from the fact that Tony exhibited several behaviors that are decidedly nonpsychopathic (such as his loyalty to his family and emotional attachment to a group of ducks that had made his swimming pool their home), Dr. Melfi’s pessimism may have been unwarranted. Although psychopaths are often unmotivated to seek treatment, research by psychologist Jennifer Skeem and her colleagues suggests that psychopaths may benefit as much as nonpsychopaths from psychological treatment. Even if the core personality traits of psychopaths are exceedingly difficult to change, their criminal behaviors may prove more amenable to treatment.

Psychopathy reminds us that media depictions of mental illness often contain as much fiction as fact. Moreover, widespread misunderstandings of such ailments can produce unfortunate consequences.

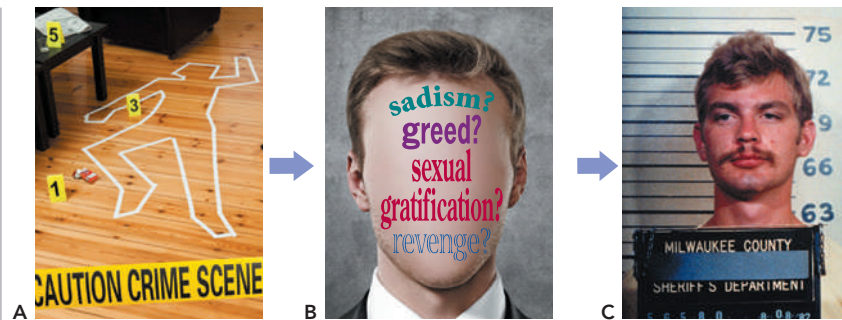
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In the profiling approach developed by the FBI, the organized–disorganized crime-scene taxonomy led directly to inferences about the killer’s personality and circumstances (see Table 5.1). As some prominent profilers explained (and as illustrated in **Figure 5.2**), “the crime scene is presumed to reflect the murderer’s behavior and personality in much the same way as furnishings reveal the homeowner’s character” (Douglas et al., 2013, p. 23). This simplistic, two-part taxonomy with

**TABLE 5.1**  
**Organized Versus Disorganized Serial Killers**

Organized	Disorganized
<i>Characteristics of Crime Scene</i>	
Planned crime	Spontaneous crime
Controlled conversation with victim	Minimal conversation with victim
Scene reflects control	Scene looks random/sloppy
Demands submissive victim	Sudden violence to victim
Restraints used	Minimal use of restraints
Aggression toward victim prior to death	Sexual behavior toward victim after death
Body hidden	Body left in view
Weapon/evidence absent	Weapon/evidence present
Transports victim	Body left at scene
<i>Hypothesized Characteristics of Serial Killer</i>	
At least average in intelligence	Below average in intelligence
Interpersonally competent	Interpersonally incompetent
Prefers skilled work	Prefers unskilled work
Sexually competent	Sexually incompetent
Inconsistent childhood discipline	Harsh childhood discipline
Controlled mood during crime	Anxious mood during crime
Precipitating situational stress	Minimal situational stress
Follows media accounts of crime	Minimal interest in media accounts of crime

its long inferential leaps from crime scenes to personality traits became an enormously influential tool for creating profiles. As some early investigators at the BSU put it, “the organized versus disorganized distinction became the great divide, a fundamental way of separating two quite different types of personalities who commit multiple murders” (Ressler & Shachtman, 1992, p. 129).



**Figure 5.2**

**The Process of Profiling.** (A) Characteristics of the crime scene lead to (B) inferences about the criminal's motives, which lead to (C) inferences about the identity of the criminal. (Pictured on the right is the convicted serial killer Jeffrey Dahmer [1960–1994], who was killed in prison by a fellow inmate.) (Masterfile; SFIO CRACHO/Shutterstock; Rapport Press/Newscom)

A more differentiated classification scheme was later proposed by Ronald Holmes and Stephan Holmes (2010). The Holmes team examined the characteristics of known serial killers and found that most killers could be categorized as one of four types: visionary, mission-oriented, hedonistic, and power-oriented. According to this scheme, **visionary types** are usually psychotic; they have visions or believe they hear voices from God or spirits instructing them to kill certain types of people. **Mission-oriented types** are less likely to be psychotic and are motivated by a desire to kill people they regard as evil or unworthy (e.g., one set out to kill all physicians who performed abortions). **Hedonistic types** kill for thrills and take sadistic sexual pleasure in torturing their victims. **Power-oriented types** get satisfaction from capturing and controlling the victim before killing. Although this scheme offers some insight into the varied motives behind these hideous crimes, sophisticated statistical analyses of the co-occurrence of traits indicate that most serial killers do not fall neatly into one of these somewhat overlapping categories (Bennell et al., 2013; Taylor et al., 2012).

## ■ Research on Profiling

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Despite surging interest in profiling and well-publicized anecdotal evidence suggesting that profiling is effective, systematic research has been slow to develop (Fox & Farrington, 2018). An early study conducted in England involved questioning 184 police detectives who had used profilers to develop leads about the identity of criminals (Copson, 1995). Although most detectives reported that they found the process “helpful,” profiling led to the identification of a perpetrator in only 2.7% of the cases. When researchers examined the actual profiles created for the police, they found that most profiles were “riddled with inaccuracies and inconsistencies.” Although this study has been criticized because it relied on the potentially biased self-reports of detectives, other research methods have also been used to probe the process of profiling.

An early experimental study compared the accuracy of profiles produced by four different groups: undergraduate college students, clinical psychologists with no profiling experience, police detectives without training in profiling techniques, and police detectives who had completed an FBI profiling training program (Pinizzotto & Finkel, 1990). All groups evaluated two actual cases—a homicide and a sex offense. The crimes had already been solved, so the true characteristics of the offenders were known. All groups evaluated the same evidence: crime-scene photographs, information about the victim, autopsy reports, and reports written by officers on the scene and detectives investigating the case. Analyses did reveal differences among the groups, the biggest differences being between the trained profiler group and all other groups. The trained profilers studied the materials more closely, spent more time writing their reports, wrote longer reports, and made more specific inferences about the offender’s characteristics. Nevertheless, their profiles were significantly more accurate only for the sex offender case, where the profiles constructed by the trained profilers were twice as accurate as the profiles constructed by the police detectives and several times more accurate than the profiles created by college students. Although these findings are intriguing, they are

not conclusive. Unfortunately, there were only six people in each of the groups that evaluated the crimes, and the profilers were probably more strongly motivated than the other groups to offer a detailed and accurate profile.

Richard Kocsis and his colleagues followed up with a series of experiments comparing trained profilers to other groups (Kocsis, 2004, 2005; Kocsis et al., 2002; Kocsis & Palermo, 2016). In one such study, trained profilers, psychologists, detectives, science students, and professed psychics were compared on their ability to provide accurate information about the likely killer in a murder case (Kocsis, 2013). All groups were given a packet of information consisting of crime-scene photos, crime reports, and other information investigators typically have at their disposal. After reviewing the evidence, all five groups filled out a questionnaire about the likely characteristics of the murderer (e.g., gender, age, ethnicity, and marital status). Because the murderer had already been identified and convicted, researchers knew the correct answers to the questions. Here is a summary of the findings across all of the studies cited above: The trained profilers were slightly better than the other groups at guessing murderers' physical attributes, but were less accurate at inferring murderers' thought processes, social habits, and personal histories. However, even when profilers performed better than other groups, profilers' accuracy rates were fairly low, generally less than 50%. (**Scientific American Spotlight 5.2** discusses the related issue of unconscious profiling due to implicit racial bias.)

Although these are useful findings, one criticism of these studies is that the number of participants in the expert profiler group was quite small: a total of 11 profilers when the studies are aggregated, with one study containing only three and another containing only five (Kocsis & Palermo, 2016). These studies have several other methodological problems. They used multiple-choice questionnaires instead of giving participants a chance to generate a profile from scratch. Also, only a small number of the profilers who were asked to participate actually agreed to be a part of a study—this self-selection bias raises the possibility that only the most confident or most motivated profilers volunteered. Finally,

the profiler group completed the study away from the supervision of researchers. Perhaps the profiler group took more time to consider the evidence, or perhaps profilers asked colleagues for input into their decisions (Snook et al., 2007).

Other researchers have attempted to determine whether there is sufficient stability and patterning in serial crimes to allow profilers to make valid inferences. Andreas Mokros and Laurence Alison (2002) conducted a careful analysis of the characteristics of 100 actual stranger rapes and the rapists who committed them. They coded each crime for the presence of 28 rapist behaviors, including the following: wears disguise; steals personal property; extends time with victim after assault; compliments, apologizes to, or demeans victim; uses surprise attack; blindfolds victim; binds victim;



Implicit bias can sometimes lead even trained police officers to target individuals because of their race. (Chip Somodevilla/Getty Images)

SCIENTIFIC AMERICAN **SPOTLIGHT 5.2****Implicit Racial Bias and Police Shootings** by Rachel Nuwer

Unlike blatant racism, implicit bias is not an individually held belief but is one generally shared by everyone in a society. Implicit racial bias is so subtle that scientists find it even among people who appear to harbor no obvious prejudices. Because our brain naturally makes sense of the world by grouping things into categories, we all generate unconscious stereotypes based on the generalizations we absorb through experiences that include movies, television, music, and the news.

With time and reflection, most people can mentally correct for implicit biases. "If I'm asking you to take a long, hard look at a job candidate, your implicit biases are not in play," [social psychologist Phillip Atiba] Goff says. But in highly stressful situations, he adds, they can govern our actions. "If I get your heart rate up, get your adrenaline pumping, and say, 'If you don't make the right decision immediately, there will be consequences for you and your family,' then you may end up relying on implicit biases." In other words, implicit biases come into play precisely in the kinds of situations that lead to police shootings of unarmed suspects.

Beginning in the early 2000s, social psychologist Joshua Correll and his colleagues began a series of experiments in which they asked people to play a fast-paced video game that involved opponents facing off with various armed and unarmed suspects appearing on the screen. "Technically, skin color is irrelevant in this simple task, which is to shoot the guys with guns and not the guys without guns," Correll explains. "But what we find is that black targets, which society stereotypically associates with threat or danger, are more likely to lead to a shooting response."

Indeed, Correll has observed that his study subjects are more likely to mistakenly fire at an unarmed black avatar than at a white one. Similarly, they are faster to shoot at an armed black target than at an armed white one. And they are quicker to deem an unarmed white figure nonthreatening, compared with an unarmed black one. These patterns

hold up whether a shooter is outwardly racist or not—and even when the shooter is black.

Kurt Hugenberg and Galen Bodenhausen further discovered that the more implicit bias a white person harbors, the more likely he or she is to perceive a black face as hostile. Again, this reaction reflects implicit prejudice, so people are unaware of the perceptual skew. "This means we can't just say, 'Don't go shooting friendly black people,'" says David Amodio, a psychologist and neuroscientist at New York University. "Stereotyping is already causing a neutral black face to appear as more threatening."

Amodio and his colleagues have looked for what prompts some of these responses in the brain. In a series of experiments during the past decade, they have found that when white volunteers are presented with a black face, they appear to experience more fear than they do in response to a white face. Specifically, when study participants look at black faces, they have stronger startle reflexes linked to activation in the amygdala, which is involved in emotional responses. . . .

Goff notes that stereotype-driven intuition can readily cause a cascade of erroneous suspicion. When a cop walks toward a person he or she believes looks suspicious, that person may begin to seem even more uneasy—precisely because the police officer is approaching. As Goff points out: "Black folks get nervous when they're worried about being stereotyped as criminals." As the suspect becomes more uncomfortable, the officer's suspicions are reinforced. If the suspect tries to evade the situation, an altercation can ensue. "Implicit bias plays a role in every one of those steps," Goff says. "It greases the wheel of disaster in terms of interpersonal interactions."

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and uses weapon. The researchers then coded police records to learn the rapist's actual characteristics, including age, race, education, marital status, living alone or with others, criminal history, and employment situation. They analyzed their data to answer the question at the heart of the profiling process: "Are similar crimes committed by similar people?" The answer was a resounding "no." No correlation at all. There was no discernible demographic resemblance between criminals who committed very similar crimes. This stunning lack of correspondence suggests (at least for serial rape) that trying to deduce the attributes of a rapist based on his crime-scene behavior may be worse than worthless—it may lead investigators to look for the wrong type of person.

The credibility generally afforded to profiling as an investigative tool appears to be more a function of favorable portrayals in movies and television shows than a function of solid science that demonstrates its effectiveness. A review of

the research highlighted this point: Only 27% of published articles on profiling described research studies, and only 5% of articles focused on theoretical issues; the remaining articles were discussions of profiling, informal summaries of the literature, or descriptions of how a single profile was developed and used in an individual case (Dowden et al., 2007). A more recent review and meta-analysis of articles on profiling found that less than half of those articles (49%) included any kind of statistical analysis of data and that 22% included only basic descriptive statistics (Fox & Farrington, 2018). This dearth of dispassionate research is critical. We cannot rely on the confident claims of practitioners of profiling because those practitioners have a strong personal and professional stake in promoting the perception that profiling is effective.

## ■ Profiling Problems and Promise

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There are several problems with the conceptual underpinnings of profiling. These problems include unwarranted assumptions, inconsistency in the behavior of individual criminals, and speculative inferences that may hamper instead of help investigators.

### Assumptions

Some basic assumptions that undergird criminal profiling have not yet been fully tested or validated. Moreover, when assumptions have been tested, they have been discredited by data (Chifflet, 2015; Fallon & Snook, 2019). First, crime-scene characteristics do not seem to support the classification of serial killers into neatly bound categories such as “organized” and “disorganized.” Instead, crime-scene characteristics seem to fall along a continuum, with a few extreme examples appearing entirely organized or entirely disorganized, but most displaying a combination of these two types. Second, particular crime-scene characteristics do not appear to be reliably associated with particular criminal personality types. The data simply do not allow us to conclude that if a crime scene has a particular characteristic, the perpetrator must therefore be a particular type of person. Third, referring to the abilities of criminal profilers in vague terms (e.g., “instinct” or “intuition” or “experience”) should not be mistaken for clear explanations of their inference process. We do not know how the inference process of profilers works or how it should work.

### Cross-Situational Consistency

Another issue concerns how consistent the behavior of an individual criminal is across crimes (Alison et al., 2010). More generally, although considerable research indicates that aspects of our basic personalities remain stable over time, our behavior is also powerfully determined by the situation (Funder, 2019). For example, if we were trying to develop a profile of you based only on your behavior in a college library, that profile would be very different from the one we would create if we looked only at your behavior at parties, and that profile would be still different from the one we would create if we looked only at your behavior during family gatherings. Context matters. In murder cases, the victim’s characteristics

(e.g., weak or strong, compliant or defiant), the setting (e.g., secluded or populated), and the killer's emotional state (e.g., agitated or calm) can vary. If changing situations lead to differences in the crime scenes, then the resulting profiles would also differ. Indeed, sometimes investigators erroneously conclude that two crimes are so similar that the same person must have committed them, or they erroneously conclude that two crime scenes are so different that two different perpetrators must be involved. The process of determining whether the same person committed two or more crimes is called **crime linkage** (Porter, 2016).

### The Utility of Inferences

Many profiles include speculations that are interesting but of little use to investigators (Alison et al., 2007; Devery, 2010). For example, consider these speculations about the interpersonal traits of serial killers drawn from profiles: “unsure of himself,” “has problems with women,” “poor heterosocial skills.” Do you know any males who are not occasionally unsure of themselves and who do not have problems with women at times? Do such speculations really help us narrow down the population of suspects? In an analysis of 21 American and European profiles created over several years, researchers found that more than 80% of the statements made by profilers were unsupported—that is, the rationales for the statements were not articulated. Further, nearly half of the statements could not be verified even after conviction (e.g., “the killer has a rich fantasy life”), and more than a quarter of the statements were ambiguous and open to interpretation (e.g., “he will have poor social skills”) (Alison et al., 2003).

In 2005, the self-named BTK killer (a nickname that stands for “bind, torture, and kill”) was sentenced to life in prison with no possibility of parole. He had killed at least 10 women over a period that began in 1974 and spanned more than 30 years. He had written several letters taunting police and local media in Wichita, Kansas. In their desperate hunt for the BTK killer, local officials tapped the expertise of three top FBI profilers who offered their ideas about the killer's identity. Here is the list of statements the profilers offered to guide the Wichita detectives (Douglas & Dodd, 2007; Gladwell, 2007):

- A lone wolf type of personality.
- Immature sexual history.
- Heavily into masturbation.
- Women he's been with are either many years younger, very naive, or much older and depend on him as their meal ticket.
- He drives a decent automobile, but it will be nondescript.
- Lower-middle class, probably living in a rental.
- Middle-class and articulate.
- People might say they remember him but don't really know much about him.
- In his mid to late 30s.
- Might be married, but probably divorced.
- IQ at least 105, less than 145.

- This guy isn't mental, but he's crazy like a fox.
- Maybe connected with the military.
- A "now" person needing instant gratification.
- Holds a lower-paying white-collar job, as opposed to blue-collar.
- Might wear a uniform for his job.
- He can function in social settings, but only on the surface.
- He may have women friends he can talk to, but he'd feel very inadequate with a peer-group female.
- Women who have had sex with this guy would describe him as aloof and uninvolved.

Imagine that you were one of the bewildered investigators faced with this muddled portrait of an elusive killer. Start with the sexual conjectures—look for a guy who masturbates a lot, who is sexually immature, who is aloof in bed, and who has been with women who are either much younger or much older than himself. Generally, these characteristics would not be easily observed by eyewitnesses and would not be part of any searchable criminal database. Such information might conceivably be useful to know if you were interviewing suspects, but *if and only if* that information is accurate. Inaccurate information could cause investigators to spin their wheels or go down dead ends. In addition, even if these speculations were accurate, there are problems of ambiguity and verifiability (your authors are both psychologists, and we are not sure how to determine whether someone is "a lone wolf," "not mental," "crazy like a fox," or "a 'now' person"). A final problem with this and other profiles is the number of contradictory elements—the BTK killer would be either lower class *or* middle class, would be married *or* divorced, would like much older *or* much younger women, and would be average *or* way above average in intelligence.

The actual BTK killer (Dennis Rader) turned out to be a family man, married with two children, living in Park City, Kansas. He had spent 4 years in the air force, was college educated, and held a steady job at a home burglar alarm company. He had served as president of the Lutheran church he had attended for more than 30 years, and he held leadership positions in the Boy Scouts of America. These specific details would have been very helpful in finding the killer, but these are not the sorts of details that profilers are able to provide. The BTK killer was eventually caught when he sent a disk containing a letter to a local television station. Investigators were able to trace the disk to a computer at his church. This case, like most cases, was not solved by a profile, but by painstaking police work and a slipup by the criminal. (The question of whether the BTK killer was psychopathic is briefly discussed in Scientific American Spotlight 5.1.)

### Persistent Problems

Even when a particular suspect fits a profile, police have an obligation not only to look for evidence that links the suspect to the crime but also to pursue evidence that may exclude that suspect from consideration. A serious problem that may result from a profile is what is sometimes called **tunnel vision**. For example, if a

profile specifies “a white male in his 30s who drives a large van, lives alone, and has disturbed relationships with women,” and investigators rely on that profile, their focus will be diverted from plausible suspects who do not fit the profile. In this way, misleading profiles may enable criminals to evade capture.

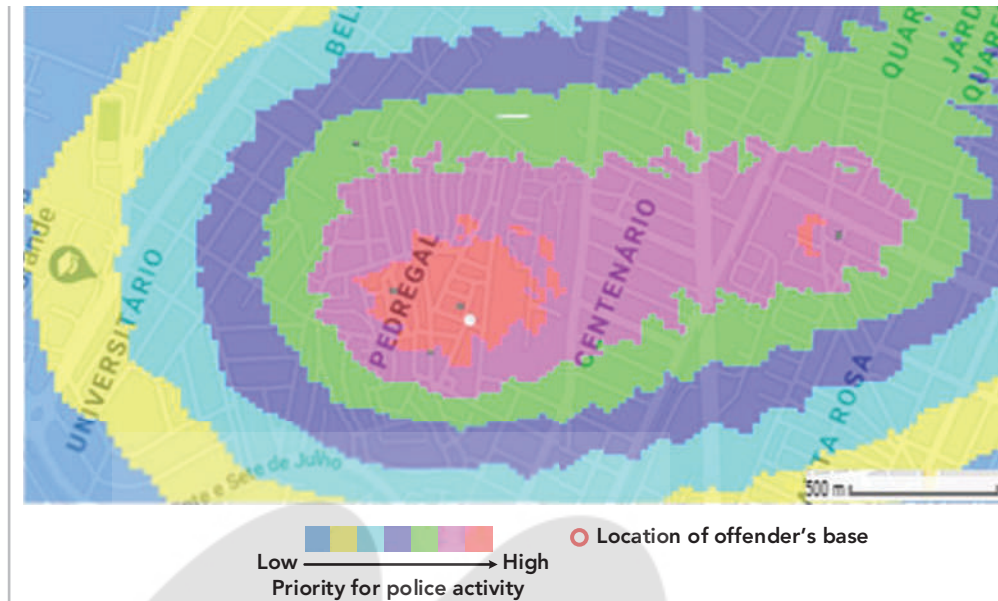
The improvement of profiling techniques will only come with enhanced databases for many types of crimes, systematic research that reveals the conditions under which profiles reliably lead to productive use of investigator resources, and the development of standardized procedures for training profilers and creating profiles. Although profiling has been regarded as a promising investigative tool for decades, that promise remains unfulfilled.

## ■ Geographic Profiling: An Alternative to Intuition

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It is useful to contrast intuitive psychological profiling with another relatively established technique: **geographic profiling** (sometimes called *criminal spatial mapping* or *geoprofiling*). Whereas intuitive psychological profiling relies heavily on instinct and inference, geographic profiling relies on maps and mathematics. Key locations associated with serial crimes—particularly crime scenes, but also places where bodies have been dumped or where witnesses have spotted suspicious activities—are plotted on a detailed computerized map (Lino et al., 2018; Rossmo & Velarde, 2008). Computer programs with catchy names such as Predator and Dragnet crunch the data to estimate the general vicinity of the criminal’s home or place of work or to predict the potential location of the criminal’s next crime (see **Figure 5.3**). Often, investigators assume that a serial offender stays within a geographic comfort zone and is likely to be caught in that zone. The computerized map can be quite detailed, including locations at high risk of becoming crime scenes, such as bars, nightclubs, parking lots, areas around college campuses, highway rest stops, and jogging paths. As the number of crimes increases, so should the usefulness of the spatial map. Unlike speculations about a killer’s personality, a geographic profile has direct implications for investigators; it suggests where to place stakeouts, where to set traps, and where to look for witnesses.

Geographic profiling has proven useful in some actual cases. For example, one such profile helped identify a serial killer who had killed women in several states. His victims were found along major interstate highways. Overlaying the spatial pattern of killings with major trucking routes helped police to find the truck driver responsible for the murders. In a similar case, the so-called Railway Killer was identified when investigators developed a geographic profile revealing that all the killings had occurred near railway tracks—the killer turned out to be a transient who hopped freight trains to get from one place to another (Hickey & Harris, 2013). Computer programs often look for an **anchor point**, the location from which an offender leaves to launch attacks. Some maps assume a **buffer zone** around a criminal’s home—that is, an area in which the criminal is less likely to commit crimes. Many programs work on the principle of **distance decay**, meaning that the probability of an attack decreases as distance from past crime locations increases. However, distance decay is offset by **temporal sequencing**,



**Figure 5.3**

**Geographic Profiling of a Serial Killer in Campina Grande, Brazil.** The Dagnet program was used to define high-priority areas for police activity in the search for the serial killer. In this case, the offender's base turned out to be within the highest-priority area, demonstrating the program's accuracy. (Data from the archive base of SEPLAN-PMCG Denis Victor Lino de Sousa.)

the principle that, over time, the geographical range of a serial offender's crimes will increase (Fritzon et al., 2016; Hammond & Youngs, 2011).

Of course, even this more systematic form of profiling has limitations. One such limitation is the quality of the underlying data set and its fit with the case under investigation (Hammond, 2014). For example, over a 20-day period in the fall of 2002, 10 people were killed by the so-called Beltway Sniper roaming the Maryland, Virginia, and District of Columbia areas. Victims were shot in public spaces such as malls, gas stations, and bus stops. Not only were the intuitive profiles offered in the case wrong, so was the computer-generated geographic profile based on the sites of the shootings. Extrapolating from those sites, the geoprofile suggested that the killer would likely be living in Montgomery County, Maryland (Horwitz & Ruane, 2003). That speculation turned out to be wrong. The actual killers (a 41-year-old man and his 17-year-old accomplice) were transients who had no real home base. Because the computer program had assumed a home base, it was incapable of supplying useful information. The two killers were eventually apprehended while sleeping in their car at a highway rest stop.

Whereas intuitive profiling relies on the application of human judgment and experience, geoprofiling relies on using statistical techniques to uncover patterns in a criminal's movements and environment. In general, statistical approaches have been found to be superior to intuitive approaches (see Chapter 15). Because geoprofiling is primarily a statistical application that provides concrete information useful in allocating investigative resources, it is more promising than the

intuitive personality profiling so often depicted in books, movies, and television shows. But it is not as glamorous or dramatically powerful. Most of us are fascinated with psychological analyses of depravity, but not with statistical analyses of movement patterns.

Particularly in the United Kingdom, the intuitive profiling that has gained notoriety during the past few decades is gradually being replaced by what has been called **behavioral investigative advice (BIA)** offered to investigators by social scientists (Rainbow et al., 2014). BIA stresses the role of offering advice to investigators on how to use the media, what questions might be asked during police interviews with suspects, and whether a crime might be part of a series of crimes. Advisors base their advice on the available research and generally make no claims about their ability to penetrate the mind of the serial criminal. Instead of creating a richly detailed psychological portrait of the criminal, the emphasis is on providing useful information to investigators.

## ■ Precise Profiles or Sloppy Stereotypes?

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Examples of loose, subjective profiles can be found in many parts of the legal system. At the extreme are so-called profiles that are little more than biased stereotypes. Decisions about who becomes a suspect, who should be interrogated, who should be prosecuted, what evidence is relevant, and who should be convicted are sometimes based, in part, on the intuitive profiles held by police officers, attorneys, judges, and jurors. In his classic analysis of police culture and behavior, Jerome Skolnick found that because police officers often find themselves in life-threatening situations, they tend to be alert to “people who may not be engaging in criminal activity, but whose conduct suggests that they might be, or might be the sort of people who would if they could.” That is, some people become suspects because they stand out “as persons whose gestures, language, or attire the police have come to identify as being potentially threatening or dangerous” (Skolnick & Fyfe, 1993, p. 97). In essence, police sometimes rely on intuitive profiles not to solve crimes, but to *predict* criminal behavior. Sometimes these predictions are accurate; sometimes they are not. Too often, people become suspects because of easily detected but superficial characteristics such as race (Spencer et al., 2016; see **Hot Topic 5.1** for a discussion of racial profiling).

The use of stereotypes or vague profiles can also create problems at trial (Bosco et al., 2010). In deciding whether to admit testimony at trial, courts must weigh the probative value of the proposed testimony against the potentially prejudicial impact of that testimony. **Probative evidence** provides information that is useful in assessing whether a person committed a crime. Consequently, two questions are crucial: (1) Should information about whether a defendant fits a profile be admissible in court? and (2) Should a defendant’s “fit” with a profile be considered evidence?

Deborah Davis and William Follette (2002) describe the case of a man on trial for the murder of his wife. His wife was driving a snowmobile, and he was riding on the back. The woman lost control of the snowmobile and crashed into a ditch. The man and woman were found shortly after the crash. She was found

## HOT TOPIC 5.1

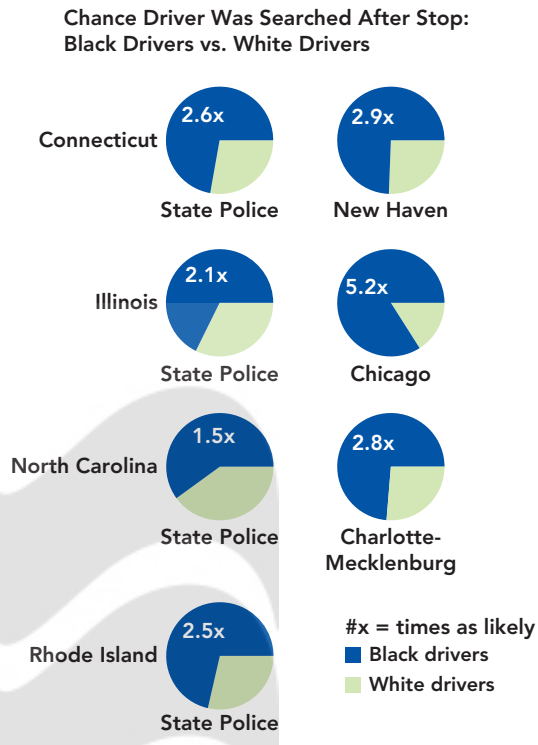
## Racial Profiling

**Racial profiling**—using race (or ethnicity) as an indicator of who might be engaged in criminal activity—has led to several lawsuits. An important early case involved a profile of a serial murderer used by the San Francisco Police Department (*Williams, Bazille et al. v. Alioto et al.*, 1977). In an attempt to catch the killer, the police detained more than 600 black men because they fit a vague profile—a black male, slender to medium build, 5'8" to 6' tall, 20 to 30 years old, who traveled either by foot or car between the hours of 8:00 PM and midnight. A court eventually issued an injunction preventing police from stopping black men merely because they fit this broad profile. Another lawsuit arose from the following facts: Although only 17% of drivers on Maryland's highway I-95 were black, 70% of the drivers that Maryland state troopers pulled over and searched for drugs were black. At the time, 75% of drivers on the same stretch of highway were white, but only 23% of the drivers who were pulled over and searched were white (Janofsky, 1998). **Figure 5.4** shows more recent stop-and-search statistics for drivers in four other states.

In 2013, a federal judge ruled that Maricopa County, Arizona, sheriff Joe Arpaio had racially profiled Hispanic drivers and violated their constitutional rights. Police had pulled over hundreds of Hispanic drivers in an effort to crack down on illegal immigration. Sheriff Arpaio had told his officers that one way to tell if someone was in the country legally was whether "they look like they just came from Mexico." The judge held that police could not target illegal immigrants without racially profiling U.S. citizens and legal residents of Hispanic origin.

The problem persists. A California study released in 2020 revealed that, although black people were only 9% of the population of Los Angeles, 5% of the population of San Francisco, and 6% of the population of San Diego, they accounted for 28%, 26%, and 19%, respectively, of the drivers stopped by police officers in those cities (Graham, 2020).

Easily observed characteristics such as skin color may be statistically correlated with a particular type of crime. However, focusing on such characteristics as a reason to classify someone as a suspect opens the door to harassment of large groups of innocent people.



**Figure 5.4**

**Police Traffic Stops and Searches in Four States.** Analysis of records from the largest police forces in four states found that black drivers were significantly more likely than white drivers to be searched after a stop. (Dates of data: Connecticut, 12/2013–8/2015; Illinois, 2009–2013; North Carolina, 2010–4/2015; Rhode Island, 1/2013–5/2014.)

face down in a pool of water at the bottom of the ditch. She was dead, apparently drowned. The man was found face up, alive but unconscious. The prosecutor alleged that what appeared to be an accidental death was actually a murder: The man had caused the snowmobile to crash, held his wife's head underwater until she drowned, and pretended to be unconscious until the rescue. The prosecution was allowed to present evidence that the husband "fit the profile" of a spouse murderer. That "profile evidence" was that (1) the husband would stand

to benefit from his wife's death because of an insurance policy purchased about a year prior to the snowmobile crash, and (2) the husband had had several extramarital affairs during the course of their marriage. The implication was that the man had killed his wife to collect insurance money, and that he wanted his wife dead so that he could be free to pursue other women.

To evaluate the probative value of this evidence statistically, Davis and Follette (2002) collected estimates such as the number of men who are unfaithful to their wives (260,000 per million) and the number of men who murder their wives (240 per million). They used this information to calculate the probability that a man who has extramarital affairs is more likely to murder his wife than is a man who does not have affairs. They concluded that "at maximum, it is .0923% (less than one tenth of one percent) more likely that an unfaithful man will murder his wife at some point in their marriage than it is that a faithful man will murder his wife" (p. 138). Put differently, an inference that a man killed his wife *because* he is unfaithful will be wrong more than 99% of the time. The snowmobile case illustrates how inferences drawn from dubious profiles make their way into the courtroom. Judges' decisions about whether to admit or exclude evidence are often partly based on their own subjective profiles about which criminal characteristics are associated with particular crimes. Once judges admit evidence, jurors then may use their own intuitive profiles to help them decide whether the defendant is guilty.

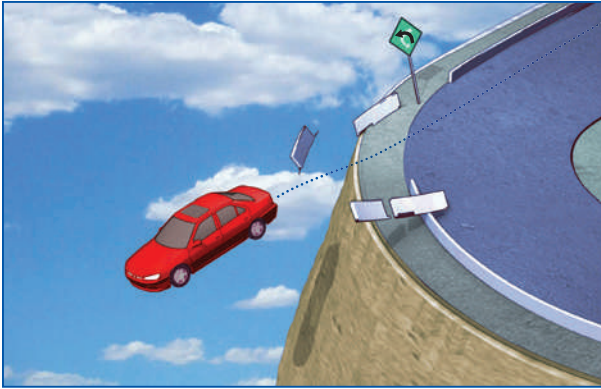
Sometimes the courts take notice of the misuse of unscientific stereotype evidence. In *State v. Hansen* (1987), the court overturned the conviction of Diane Hansen, a high school teacher who had engaged in a sexual affair with one of her students. The appeals court held that it was an error for the trial judge to allow a police detective to testify that Hansen fit the profile of a child molester:

Detective Robson testified to what might be described as a "profile" of a nonviolent child abuser who is unrelated to the child: physical and psychological "testing" of the child, giving gifts, showing affection, praising, making the child feel comfortable in the abuser's presence, etc. That child abusers use these techniques has no bearing on whether a person who does these things is a child abuser. For example, it is probably accurate to say that the vast majority of persons who abuse children sexually are male. This says little, if anything, however, about whether a particular male defendant has sexually abused a child. . . . The danger of unfair prejudice to the defendant from the unwarranted inference that because the defendant engages in acts that sexual child abusers engage in, she, too, is a sexual child abuser is simply too great. (p. 157)

## ■ Psychological Autopsies

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Suppose a man is driving alone on a winding stretch of highway that skirts the edge of a high cliff. His car veers off the road, plunges several hundred feet, crashes into the rocks below, and bursts into flames. The man is killed. This is



If the driver was found dead in the car at the bottom of the cliff, how do we determine whether the death was natural, accidental, suicide, or homicide? Did he have a fatal heart attack before going off the cliff? Was he going too fast around the turn? Was he depressed and desperate due to financial problems? Did someone tamper with the brakes? A psychological autopsy might help answer such questions.

an example of an **equivocal death**. That is, it is not clear why the car fell from the cliff. One possibility is that the man's death was accidental—perhaps he was tired and dozed off for a second or two, perhaps he had been drinking, perhaps his attention lapsed when he glanced at his phone to read a text message. A second possibility is that the man committed suicide; he knew that the fall was certain to kill him, but he wanted to make it look like an accident so that his wife and children would receive an insurance payout of several hundred thousand dollars (many life insurance policies do not pay survivors if a death was a suicide). A third possibility is that the

death was actually a murder disguised to look like an accident—perhaps someone who knew that the man would be driving that stretch of highway tampered with the brakes or steering of his car. In what is called the **NASH system** for death classification, a death can fall into one of four categories: *natural*, *accidental*, *suicide*, or *homicide*.

Just as the name implies, a **psychological autopsy** is an effort to dissect and examine the psychological state of a person prior to his or her death. Of course, the analogy between physical and psychological autopsies is not perfect. Injuries on a dead body can be closely examined. A corpse can be cut open; body parts can be weighed, measured, and chemically analyzed. There is no comparable “psychological corpse” to examine. The autopsy-like psychological analysis must rely on less direct sources of evidence. Typically, these sources include any records left behind by the deceased (letters, e-mails, journal entries, cell phone records, audio or video recordings, bank accounts, student or employee records) as well as data about the person gathered from interviews with friends, family members, and coworkers who were in contact with the deceased prior to death. The goal is to reconstruct the dead person's emotional state, personality, thoughts, and lifestyle. Inferences about the deceased person's intentions and emotional state just prior to death are crucial to the analysis (Bakst et al., 2016).

Researchers have developed checklists to assist medical examiners in distinguishing between suicide and accidental death. Most checklists emphasize two basic criteria: whether the death could have been self-inflicted and whether there were clear indications of an intention to die (Botello et al., 2013). In many cases, the determination of whether the death could have been self-inflicted is straightforward. It is possible to poison yourself, jump from a tall building, or drive your car off a cliff. It is even possible to drown yourself. But it is quite difficult to beat yourself to death with a baseball bat or shoot yourself from across a room. If investigators conclude that a death was self-inflicted, they must then determine if that death was accidental or intentional. For example, psychologists would be more likely to conclude that the man who drove off a cliff had committed suicide if he had been noticeably depressed, if he had made an effort to “put his affairs in order,” if he had been experiencing serious emotional or physical pain, if he had severe financial problems, if he had made previous suicide threats or

attempts, if he had made attempts to say goodbye to people close to him, or if he had expressed a desire to die.

Several researchers have proposed lists of questions to ask and issues to consider to help psychologists make the tricky determination of whether someone committed suicide (e.g., Leenaars, 2017). Here is a 16-issue checklist used to assist psychologists in making this determination (Simon, 2006):

1. Pathological evidence (autopsy) indicates self-inflicted death.
2. Toxicological evidence indicates self-inflicted death.
3. Statements by witnesses indicate self-inflicted death.
4. Investigatory evidence (e.g., police reports, photos from crime scene) indicates self-inflicted death.
5. Psychological evidence (observed behavior, lifestyle, personality) indicates self-inflicted death.
6. State of the deceased body indicates self-inflicted death.
7. Evidence indicates the decedent recognized high potential lethality of means of death.
8. Decedent had reported suicidal thoughts.
9. Decedent had recent and sudden change in affect (emotions).
10. Decedent had experienced serious depression or mental disorder.
11. Decedent had made an expression of hopelessness.
12. Decedent had made an expression of farewell, indicating a desire to die.
13. Decedent had experienced stressful events or significant losses (actual or threatened).
14. Decedent had experienced general instability in immediate family.
15. Decedent had recent interpersonal conflicts.
16. Decedent had history of generally poor physical health.

When information about the dead person and the manner of death is plentiful, such checklists have proven quite useful. In one study, researchers looked at 126 cases in which the cause of death was already known. Coders then attempted to distinguish between suicides and accidental deaths by classifying the deaths on the 16 issues listed above. They were able to distinguish between the two types of death with 92% accuracy (Jobes et al., 1991). Of course, there is often inadequate information. Without written records, audio or video recordings, or people in whom the person confided (and who are willing to talk to an investigator), it is often difficult to say whether someone took his or her own life.

Often, the findings of a psychological autopsy are equivocal. If the man who drove his car off a cliff had been depressed, we may lean slightly toward a judgment of suicide, but we cannot be sure. Sometimes, the available evidence, though not compelling or conclusive, may be sufficient to settle the legal issue at stake. If the man who drove off a cliff showed no clear signs of being suicidal, his wife and children will probably receive the insurance money.

### Legal Status of Psychological Autopsies

Courts have been receptive to expert testimony based on a form of psychological autopsy in some civil cases. When the distribution of assets specified in a will is challenged in court, the conflict usually turns on whether the deceased person was legally competent when the will was written or revised. An investigation, or “autopsy,” of the state of mind and intentions of the person at the time the will was drawn up is critical to a decision about whether the will is legally binding. If medical records and testimony from friends and family members indicate that the deceased was suffering from some form of dementia, the will may be ruled invalid. This limited form of psychological autopsy is routinely allowed in court.

In contrast, in criminal cases, courts have generally been reluctant to allow expert testimony based on psychological autopsies. However, in one criminal case — *Jackson v. State* (1989) — not only was psychological autopsy testimony admitted, but the trial court’s decision to allow the testimony was upheld on appeal. The case involved a spectacularly bad mother named Theresa Jackson and her 17-year-old daughter, Tina Mancini. Unemployed and struggling to meet her financial obligations, Ms. Jackson encouraged her underage daughter to take a job as a nude dancer in a nearby strip club. To get around the law, Ms. Jackson changed the birth date on her daughter’s birth certificate and forged the signature of a notary. Tina’s dancing earned her several hundred dollars a week, but her mother charged Tina more than \$300 a week for rent and living expenses. The nude dancing job was a continuing source of conflict between mother and daughter — Theresa Jackson wanted Tina to work more; Tina wanted to quit. Ms. Jackson threatened her daughter and told her that if she did quit, Ms. Jackson would report her to the police for underage dancing. Tina Mancini committed suicide before her eighteenth birthday.

Following her daughter’s death, Theresa Jackson was tried and convicted of forgery, procuring sexual performance by a child, and child abuse. At trial, a psychiatrist testified that the psychologically abusive relationship between mother and daughter had contributed to Tina Mancini’s suicide. Jackson appealed the conviction, claiming that the trial judge should not have permitted psychological autopsy testimony about her daughter. In upholding the lower court’s decision, the appellate court found that allowing testimony about the mental state of someone who died of suicide is not qualitatively different from allowing testimony about the sanity of someone accused of murder or allowing testimony about the mental competence of someone who had written a will.

In an inventive attempt to extend the ruling in the *Jackson* case, a defendant in a murder case argued that an expert should be able to testify in support of his claim of self-defense (*Sysyn v. State*, 2000). The argument was that the defendant had shot the victim in the head because the victim had deliberately attacked and provoked the defendant in an effort to commit suicide. This theory, it was argued, would be strongly supported by the findings of a psychological autopsy showing that the victim was suicidal. The trial court excluded the expert testimony, and an appellate court upheld the conviction.

## In Conclusion

At present, we have no good estimates of how often profiles have been useful and how often they have been useless or even counterproductive. We do not know the error rates or the rates of success. Some profiles have led to the arrest of guilty people; some profiles have led to the arrest of innocent people. Some profiles have pointed police in the right direction; others have led police astray and wasted time and resources. And while police are looking in the wrong direction, the trail of the real criminal can grow cold.

Some variations of profiling techniques—for example, geographic profiling and psychological autopsies—appear to yield useful clues in solving crimes or making sense of an equivocal death. However, the effectiveness of such techniques in generating useful inferences depends on the quality and quantity of available data. Before a geographic profile can be generated, several related crimes must occur. Similarly, if there is little information about the predeath thoughts and behaviors of a now-dead person, a psychological autopsy can only produce equivocal findings. Only continued research will allow us to specify the conditions under which various profiling techniques are useful in moving investigations forward.

## Discussion and Critical Thinking Questions

1. When is it reasonable to rely on criminal profiling to help solve a crime? When is it counterproductive?
2. Why might people believe that criminal profiling works despite a lack of evidence that it is effective?
3. Under what circumstances is it useful to know that a defendant fits the profile of others who commit the type of crime the defendant is accused of committing? For example, is it useful to know that a defendant is psychologically similar to other child molesters, rapists, or murderers?
4. What factors affect the likelihood that geographic profiling will be useful in identifying a criminal?
5. Is it ever reasonable to consider race when trying to predict criminal behavior? Is it ever reasonable to consider gender?
6. Do you believe there is sufficient research evidence to demonstrate the usefulness of criminal profiling in cases involving serial killers? Why or why not?
7. Should the findings of psychological autopsies be admissible in court? If so, under what conditions?

## Key Terms

anchor point (p. 129)  
 behavioral investigative  
 advice (BIA) (p. 131)  
 buffer zone (p. 129)  
 crime linkage (p. 127)  
 disorganized murderers  
 (p. 120)

distance decay (p. 129)  
 equivocal death (p. 134)  
 geographic profiling (p. 129)  
 hedonistic types (p. 123)  
 mission-oriented types  
 (p. 123)  
 NASH system (p. 134)

organized murderers (p. 120)  
 power-oriented types (p. 123)  
 probative evidence (p. 131)  
 profiling (p. 114)  
 psychological autopsy  
 (p. 134)  
 racial profiling (p. 132)

serial killers (p. 114)  
 signature (p. 114)  
 temporal sequencing (p. 129)  
 tunnel vision (p. 128)  
 visionary types (p. 123)

