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Psychological sleuths Criminal profiling: the reality behind the myth

Forensic psychologists are working with law enforcement officials to integrate psychological science into criminal profiling.

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For 16 years, "mad bomber" George Metesky eluded New York City police. Metesky planted more than 30 small bombs around the city between 1940 and 1956, hitting movie theaters, phone booths and other public areas.

In 1956, the frustrated investigators asked psychiatrist James Brussel, New York State's assistant commissioner of mental hygiene, to study crime scene photos and notes from the bomber. Brussel came up with a detailed description of the suspect: He would be unmarried, foreign, self-educated, in his 50s, living in Connecticut, paranoid and with a vendetta against Con Edison--the first bomb had targeted the power company's 67th street headquarters.

While some of Brussel's predictions were simply common sense, others were based on psychological ideas. For instance, he said that because paranoia tends to peak around age 35, the bomber, 16 years after his first bomb, would now be in his 50s. The profile proved dead on: It led police right to Metesky, who was arrested in January 1957 and confessed immediately.

In the following decades, police in New York and elsewhere continued to consult psychologists and psychiatrists to develop profiles of particularly difficult-to-catch offenders. At the same time, though, much of the criminal profiling field developed within the law enforcement community--particularly the FBI.

Nowadays profiling rests, sometimes uneasily, somewhere between law enforcement and psychology. As a science, it is still a relatively new field with few set boundaries or definitions. Its practitioners don't always agree on methodology or even terminology. The term "profiling" has caught on among the general public, largely due to movies like "The Silence of the Lambs" and TV shows like "Profiler." But the FBI calls its form of profiling "criminal investigative analysis"; one prominent forensic psychologist calls his work "investigative psychology"; and another calls his "crime action profiling."

Despite the different names, all of these tactics share a common goal: to help investigators examine evidence from crime scenes and victim and witness reports to develop an offender description. The description can include psychological variables such as personality traits, psychopathologies and behavior patterns, as well as demographic variables such as age,

race or geographic location. Investigators might use profiling to narrow down a field of suspects or figure out how to interrogate a suspect already in custody.

"In some ways, [profiling] is really still as much an art as a science," says psychologist Harvey Schlossberg, PhD, former director of psychological services for the New York Police Department. But in recent years, many psychologists--together with criminologists and law enforcement officials--have begun using psychology's statistical and research methods to bring more science into the art.

How does profiling work?

Informal criminal profiling has a long history. It was used as early as the 1880s, when two physicians, George Phillips and Thomas Bond, used crime scene clues to make predictions about British serial murderer Jack the Ripper's personality.

At the same time, profiling has taken root in the United States, where, until recent decades, profilers relied mostly on their own intuition and informal studies. Schlossberg, who developed profiles of many criminals, including David Berkowitz--New York City's "Son of Sam"--describes the approach he used in the late 1960s and 70s: "What I would do," he says, "is sit down and look through cases where the criminals had been arrested. I listed how old [the perpetrators] were, whether they were male or female, their level of education. Did they come from broken families? Did they have school behavioral problems? I listed as many factors as I could come up with, and then I added them up to see which were the most common."

In 1974, the FBI formed its Behavioral Science Unit to investigate serial rape and homicide cases. From 1976 to 1979, several FBI agents--most famously John Douglas and Robert Ressler--interviewed 36 serial murderers to develop theories and categories of different types of offenders.

Most notably, they developed the idea of the "organized/disorganized dichotomy": Organized crimes are premeditated and carefully planned, so little evidence is found at the scene. Organized criminals, according to the classification scheme, are antisocial but know right from wrong, are not insane and show no remorse. Disorganized crimes, in contrast, are not planned, and criminals leave such evidence as fingerprints and blood. Disorganized criminals may be young, under the influence of alcohol or drugs, or mentally ill.

Over the past quarter-century, the Behavioral Science Unit has further developed the FBI's profiling process--including refining the organized/disorganized dichotomy into a continuum and developing other classification schemes.

"The basic premise is that behavior reflects personality," explains retired FBI agent Gregg McCrary. In a homicide case, for example, FBI agents glean insight into personality through questions about the murderer's behavior at four crime phases:

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

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

*** Body disposal:** Did the murder and body disposal take place all at one scene, or multiple scenes?

*** Postoffense behavior:** Is the murderer trying to inject himself into the investigation by reacting to media reports or contacting investigators?

A rape case is analyzed in much the same way, but with the additional information that comes from a living victim. Everything about the crime, from the sexual acts the rapist forces on the victim to the order in which they're performed, offers a clue about the perpetrator, McCrary says.

Psychology's contributions

Although the FBI approach has gained public attention, some psychologists have questioned its scientific solidity. Ressler, Douglas and the other FBI agents were not psychologists, and some psychologists who looked at their work found methodological flaws.

Former FBI agent McCrary agrees that some of the FBI's early research was rough: "Early on it was just a bunch of us [FBI agents] basing our work on our investigative experience," he says, "and hopefully being right more than we were wrong."

McCrary says he believes that they were right more than wrong, though, and emphasizes that FBI methods have improved since then. In the meantime, psychologists have also been helping to step up profiling's scientific rigor. Some psychologists have been conducting their own criminal profiling research, and they've developed several new approaches:

* **Offender profiling.** Much of this work comes from applied psychologist David Canter, PhD, who founded the field of investigative psychology in the early 1990s and now runs the Centre for Investigative Psychology at the University of Liverpool.

Investigative psychology, Canter says, includes many areas where psychology can contribute to investigations--including profiling. The goal of investigative psychology's form of profiling, like all profiling, is to infer characteristics of a criminal based on his or her behavior during the crime. But, Canter says, the key is that all of those inferences should come from empirical, peer-reviewed research--not necessarily from investigative experience.

For example, Canter and his colleagues recently analyzed crime scene data from 100 serial homicides to test the FBI's organized/disorganized model. Their results, which will be published in an upcoming issue of APA's *Psychology, Public Policy and Law*, indicate that, in contrast to some earlier findings, almost all serial murderers show some level of organization.

Organized behaviors--like positioning or concealing a victim's body--are the "core variables" that tend to show up most frequently and co-occur with other variables most often, he found. The differences between murderers, the researchers say, instead lie in the types of disorganized behaviors they exhibit. The study suggests that serial murderers can be divided into categories based on the way they interact with their victims: through sexual control, mutilation, execution or plunder.

Canter says that research like this, which uses the statistical techniques of psychology to group together types of offender behaviors, is the only way to develop scientifically defensible descriptions and classifications of offenders.

"Our approach," he says, "is to consider all the information that may be apparent at the crime scene and to carry out theory-based studies to determine the underlying structures of that material."

In another study, he and his colleagues collected crime scene data from 112 rape cases and analyzed the relationship among different crime scene actions--from what types of sexual acts the rapist demanded to whether he bound the victim. The researchers found that the types of sexual violation and physical assault did not distinguish rapists from each other; these were the core variables that occurred in most rape cases. Instead, what distinguished the rapists into categories were nonphysical interactions--things like whether they stole from or apologized to the victim.

Canter puts little faith in the investigative experience-derived offender descriptions developed by law-enforcement agents. As he sees it, psychologists need to work from the ground up to gather data and classify offenders in areas as various as arson, burglary, rape and homicide.

* **Crime action profiling.** Forensic psychologist Richard Kocsis, PhD, and his colleagues have developed models based on large studies of serial murderers, rapists and arsonists that act as guides to profiling such crimes. The models, he says, are similar to the structured interviews clinical psychologists use to make clinical diagnoses. They come out of an Australian government-funded research program that Kocsis ran, in which he developed profiling methods in collaboration with police and fire agencies.

Now in private practice, Kocsis says crime action profiling models are rooted in knowledge developed by forensic psychologists, psychiatrists and criminologists. Part of crime action profiling also involves examining the process and practice of profiling.

"Everybody seems to be preoccupied with developing principles for profiling," Kocsis explains. "However, what seems to have been overlooked is any systematic examination of how to compose a profile. What type of information do, or should, profiles contain? What type of case material do you need to construct a profile? How does the presence or absence of material affect the accuracy of a profile?"

He has studied, for example, whether police officers perceive the same profile to be more accurate and useful when they believe it was written by a professional profiler rather than a layperson.

Kocsis agrees that the future of profiling lies in more empirically based research. He also believes, though, that just as some clinicians are better than others, there is also a skill element involved in profiling. Is profiling an art or a science? "Realistically, I think it is probably a bit of both," he says.

The psychology-law enforcement relationship

Among those in the profiling field, the tension between law enforcement and psychology still exists to some degree. "The difference is really a matter of the FBI being more oriented towards investigative experience than [academic psychologists] are," says retired FBI agent McCrary.

"But," he adds, "it's important to remember that we're all working toward the same thing."

In recent years, the FBI has begun to work closely with many forensic psychologists--in fact, it employs them. Psychologist Stephen Band, PhD, is the chief of the Behavioral Science Unit, and clinical forensic psychologist Anthony Pinizzotto, PhD, is one of the FBI's chief scientists.

The unit also conducts research with forensic psychologists at the John Jay College of Criminal Justice in New York. One recent collaborative study, for example, looked at the relationship between burglaries and certain types of sexual offenses--whether specific aspects of a crime scene differed in incidents that began as a burglary and ended in a sexual offense, as opposed to crimes that began as a sexual offense but included theft. Police looking at the first type of crime might want to look for convicted burglars in the area, Pinizzotto explains. The study will be published in an upcoming issue of *Sex Offender Law Report*, published by the Civic Research Institute.

One of the FBI's collaborators at John Jay College is Gabrielle Salfati, PhD, a graduate of the Centre for Investigative Psychology. "Whenever we do research, we try to bring in as many varied points of view as possible," Pinizzotto says. "Gabrielle Salfati's expertise on the statistical aspects of evaluating crime scenes is a great contribution."

More recently, the unit has also begun to collaborate with forensic psychologists at Marymount University in Arlington, Va.--another indication that law enforcement and psychology will continue to work together.

"I think," says Band, "that there is an incredible value added when applications of professional psychology enter into the mix of what we do."

Psychological sleuths Does profiling really work?

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There's no easy way to test whether professional profilers are better than nonprofilers at identifying perpetrators. However, a few psychologists have tried.

In a 1990 study published in *Law and Human Behavior* (Vol. 14, No. 3), Anthony Pinizzotto, PhD--formerly of Georgetown University, now with the FBI's Behavioral Science Unit--and Norman Finkel, PhD, of Georgetown University, tested a group of FBI profilers, police detectives trained by the FBI, other police detectives, clinical psychologists and students. The researchers gave each group detailed case materials from two solved crimes (a murder and a rape), asked the participants to write profiles of the type of people likely to commit such crimes, and then compared the profiles with the actual, convicted offenders. The results were mixed.

The trained profilers wrote longer and more detailed profiles, and their profiles of the rapist were more correct than any other group's. In the murder case, however, they fared no better on average than the nonprofilers did.

In 2003, Australian forensic psychologist Richard Kocsis, PhD, published in the *International Journal of Offender Therapy and Comparative Criminology* (Vol. 47, No. 2) the results of a series of studies that replicated and expanded on Pinizzotto and Finkel's work. Kocsis used solved arson and murder cases to test groups of profilers, undergraduate science students, psychologists, police recruits, experienced police personnel, arson investigators, psychics and random control participants. Kocsis chose those groups because the nonprofilers represented different skills typically considered essential for profiling--investigative experience (experienced police personnel and arson investigators), behavioral knowledge (psychologists), logical reasoning (science students) and intuition (psychics).

This time, the professional profilers made more correct predictions about the offenders than any other group. But they weren't uniformly good at their jobs--they also had the highest statistical variation among any of the groups. Interestingly, overall, the science students did the second-best job. Kocsis says this indicates that a capacity for logical reasoning is a particularly important profiling skill.

The studies provide interesting and provocative food for thought, say some psychologists, but like any lab experiment, they have their limits.

"Profilers would say, 'That's not really the conditions under which we do our thing,'" says forensic psychologist Robert Homant, PhD, of the University of Detroit Mercy. "If I really believed that profiling had a lot to offer, these studies wouldn't convince me otherwise. And if I believed that profiling was just dressed-up astrology, they probably wouldn't convince me that profiling is good. It's a little too lacking in external validity."