LEARNING OBJECTIVES

1. Describe the four common errors in everyday reasoning.
2. Define social science compared to pseudoscience.
3. Explain the motivations of social research.
4. Identify the four types of social research.
5. Explain the difference between the positivist and constructivist orientations to social research.
6. Understand the differences between quantitative and qualitative methods and the advantages of mixed methods.

What Do We Have in Mind?

The population of the United States all too frequently mourns the deaths of young, innocent lives taken in school shootings. The deadliest elementary school shooting took place on December 14, 2012, when a 20-year-old man named Adam Lanza walked into an elementary school in Newtown, Connecticut, armed with several semiautomatic weapons and killed 20 children and six adults. On April 16, 2007, Cho Seung-Hui perpetrated the deadliest college mass shooting by killing 32 students, faculty, and staff and left over 30 others injured on the campus of Virginia Tech in Blacksburg, Virginia. Cho was armed with two semiautomatic handguns that he had legally purchased and a vest filled with ammunition. As police were closing in on the scene, he killed himself. The deadliest high school shooting occurred on April 20, 1999, when Eric Harris and Dylan Klebold killed 12 students and a teacher before killing themselves at Columbine High School in suburban Colorado.
None of these mass murderers were typical terrorists, and each of these incidents caused a media frenzy. Headlines such as “The School Violence Crisis” and “School Crime Epidemic” were plastered across national newspapers and weekly news journals. Unfortunately, the media plays a large role in how we perceive both problems and solutions. In fact, 95% of Americans say that mass media sources such as television and newspapers are their main source of information on crime and violence (Surrette, 1998). What are your perceptions of violence committed by youth, and how did you acquire them? What do you believe are the causes of youth violence? Many factors have been blamed for youth violence in American society, including the easy availability of guns, the lack of guns in classrooms for protection, the use of weapons in movies and television, the moral decay of our nation, poor parenting, unaware teachers, school and class size, racial prejudice, teenage alienation, the Internet and the World Wide Web, anti-Semitism, and rap and rock music, and the list goes on.

You probably have your own ideas about the factors related to violence in general and youth violence in particular. However, these beliefs may not always be supported by empirical research. In fact, the factors often touted by politicians and the media to be related to violence are not always supported by empirical evidence. In the rest of this chapter, you will learn how the methods of social science research go beyond stories in the popular media to help us answer questions such as “What are the causes of youth violence?” By the chapter’s end, you should understand how scientific methods used in criminal justice and criminology can help us understand and answer research questions in this discipline.

### Reasoning About the Social World

#### Case Study

#### Why Do Kids Kill?

The story of just one murderous youth raises many questions. Take a few minutes to read each of the following questions and jot down your answers. Don’t overthink or worry too much about the questions. This is not a test; there are no wrong answers.

- How would you describe Eric Harris?
- Why do you think Eric Harris wanted to kill other students?
- Was Eric Harris typical of other teenage murderers?
- How have you learned about youth violence?

Now let us consider the possible answers to one of these questions. The information about Eric Harris is somewhat inconsistent (Duggan, Shear, & Fisher, 1999). He was the 18-year-old son of white, middle-class professionals. He had an older brother who attended the University of Colorado. Harris apparently thought of himself as a white supremacist, but he also loved music by antiracist rock bands. On his webpage, he quoted from KMFDM, a German rock band whose song “Waste” includes these lyrics: “What I don’t say I don’t do. What I don’t do I don’t like. What I don’t like I waste.”

Online, Harris referred to himself as “Darkness.”

Do you have enough information now to understand why Eric went on a shooting rampage in his school?

A year before the shootings at Columbine High School, Harris was arrested on a felony count of breaking into a car. A juvenile court put him on probation, required him to perform community service and take criminal justice classes, and sent him to a school counseling program. He was described by one of his probation officers as a “very bright young man who is likely to succeed in life.”

Now can you construct an adequate description of Eric Harris? Can you explain the reason for his murderous rampage? Or do you feel you need to know more about him, about his friends and the family in which he grew up? And
how about his experiences in school and with the criminal justice system? We have attempted to investigate just one person’s experiences, and already our investigation is spawning more and more questions.

Questions and Answers

We cannot avoid asking questions about the actions and attitudes of others. We all try to make sense of the complexities of our social world and our position in it, in which we have quite a personal stake. In fact, the more that you begin to think like a social scientist, the more questions will come to mind.

But why does each question have so many possible answers? Surely our individual perspectives play a role. One person may see a homicide offender as a victim of circumstance, while another person may see the same individual as inherently evil. Answers to questions we ask in the criminological sciences vary because individual life experiences and circumstances vary. When questions concern not just one person but many people or general social processes, the number of possible answers quickly multiplies. In fact, people have very different beliefs about the factors responsible for mass shootings. Exhibit 1.1 displays Gallup Poll results from the following question, “Thinking about mass shootings that have occurred in the U.S. in recent years, from what you know or have read, how much do you think each of the following factors is to blame for the shootings?” As you can see, a large percentage blame the mental health system—4 out of 10 blame easy access to guns as well—but nearly 1 out of 5 blame inflammatory language from political commentators.

Everyday Errors in Reasoning

People give different answers to research questions for yet another reason: It is simply too easy to make errors in logic, particularly when we are analyzing the social world in which we ourselves are conscious participants. We can call some of these everyday errors, because they occur so frequently.

For evidence of everyday errors, just listen to your conversations or the conversations of others for one day. At some point in the day, it is inevitable that you or someone you are talking with will say something like, “Well, I knew a person who did X, and then Y happened.” From this one piece of information, you draw a conclusion about the likelihood of Y. Four general errors in everyday reasoning can be made: overgeneralization, selective or inaccurate observation, illogical reasoning, and resistance to change.

<table>
<thead>
<tr>
<th>Exhibit 1.1</th>
<th>Responses to the Question, “Thinking About Mass Shootings That Have Occurred in the U.S. in Recent Years, From What You Know Or Have Read, How Much Do You Think Each of the Following Factors Is to Blame for the Shootings?”</th>
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<tr>
<td>Failure of the mental health system to identify Individuals who are a danger to others</td>
<td>Great deal %</td>
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<tr>
<td>Easy access to guns</td>
<td>48</td>
</tr>
<tr>
<td>Drug use</td>
<td>40</td>
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<tr>
<td>Violence in movies, video games, and music lyrics</td>
<td>37</td>
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<tr>
<td>The spread of extremist viewpoints on the Internet</td>
<td>32</td>
</tr>
<tr>
<td>Insufficient security at public buildings including businesses and schools</td>
<td>29</td>
</tr>
<tr>
<td>Inflammatory language from prominent political commentators</td>
<td>18</td>
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</tbody>
</table>

Source: Reprinted with permission from Gallup.
Overgeneralization

Overgeneralization, an error in reasoning, occurs when we conclude that what we have observed or what we know to be true for some cases is true for all cases. We are always drawing conclusions about people and social processes from our own interactions with them, but sometimes we forget that our experiences are limited. The social (and natural) world is, after all, a complex place. We have the ability (and inclination) to interact with just a small fraction of the individuals who live in the world, especially in a limited span of time.

Selective or Inaccurate Observation

Selective observation is choosing to look only at things that align with our preferences or beliefs. When we are inclined to criticize individuals or institutions, it is all too easy to notice their every failing. We are also more inclined to see the failings of others who are “not like us.” If we are convinced in advance that all kids who are violent are unlikely to be rehabilitated and will go on to commit violent offenses in adulthood, we will probably find many cases confirming our beliefs. But what about other youths who have become productive and stable citizens after engaging in violence as adolescents? If we acknowledge only the instances that confirm our predispositions, we are victims of our own selective observation. Exhibit 1.2 depicts the difference between overgeneralization and selective observation.

Our observations also can simply be inaccurate. If a woman says she is hungry and we think she said she is hunted, we have made an inaccurate observation. If we think five people are standing on a street corner when there are actually seven, we have also made an inaccurate observation. Such errors occur often in casual conversation and in everyday observation of the world around us. In fact, our perceptions do not provide a direct window to the world around us, for what we think we have sensed is not necessarily what we have seen (or heard, smelled, felt, or tasted). Even when our senses are functioning fully, our minds have to interpret what we have sensed (Humphrey, 1992).
Illogical Reasoning

When we prematurely jump to conclusions or argue on the basis of invalid assumptions, we are using illogical reasoning. For example, it is not reasonable to propose that depictions of violence in media such as television and movies cause violence if evidence indicates that the majority of those who watch such programs do not become violent. However, it is also illogical to assume that media depictions of gratuitous violence have no effect on individuals. Of course, logic that seems valid to one person can seem twisted or unsound to another; the problem emerges when our reasoning stems from different assumptions rather than a failure to think straight.

Resistance to Change

Resistance to change, the reluctance to change our ideas in light of new information, may occur for several reasons:

- Ego-based commitments. We all learn to greet with some skepticism the claims by leaders of companies, schools, agencies, and so on that people in their organization are happy, that revenues are growing, that services are being delivered in the best possible way, and so forth. We know how tempting it is to make statements about the social world that conform to our own needs rather than to the observable facts. It also can be difficult to admit that we were wrong once we have staked out a position on an issue.

- Excessive devotion to tradition. Some degree of devotion to tradition is necessary for the predictable functioning of society. Social life can be richer and more meaningful if it is allowed to flow along the paths charted by those who have preceded us. But too much devotion to tradition can stifle adaptation to changing circumstances. When we distort our observations or alter our reasoning so that we can maintain beliefs that “were good enough for my grandfather, so they’re good enough for me,” we hinder our ability to accept new findings and develop new knowledge.

- Uncritical agreement with authority. If we lack the courage to critically evaluate the ideas of those in positions of authority, we will have little basis for complaint if they exercise their authority over us in ways we do not like. And if we do not allow new discoveries to call our beliefs into question, our understanding of the social world will remain limited. People often accept the beliefs of those in positions of authority without question.

Now take just a minute to reexamine the beliefs about youth violence that you recorded earlier. Did you settle on a simple explanation even though the reality was far more complex? Were your beliefs influenced by your own ego and feelings about your similarities to or differences from individuals prone to violence? Are your beliefs perhaps based on depictions of violence in the media or fiction? Did you weigh carefully the opinions of authority figures, including politicians, teachers, and even your parents, or just accept or reject those opinions? Could knowledge of research methods help to improve your own understanding of the factors related to violent behavior? By now, you can see some of the challenges faced by social scientists who study issues related to crime and the criminal justice system.

You do not have to be a scientist or use sophisticated research techniques to recognize and avoid these four errors in reasoning. If you recognize these errors for what they are and make a conscious effort to avoid them, you can improve your own reasoning. Simply stated, refrain from stereotyping people, avoid jumping to conclusions, and look at the big picture. These are the same errors that the methods of social science are designed to help us avoid.

How the Scientific Approach Is Different

The social science approach to answering questions about the social world is designed to greatly reduce these potential sources of error in everyday reasoning.
Science relies on systematic methods to answer questions, and it does so in a way that allows others to inspect and evaluate its methods. In the realm of social research, these methods are not so unusual. After all, they involve asking questions, observing social groups, and counting people, which we often do in our everyday lives. However, social scientists develop, refine, apply, and report their understanding of the social world more systematically, or specifically, than Joanna Q. Public.

- Social science research methods can reduce the likelihood of over-generalization by using systematic procedures for selecting individuals or groups to study that are representative of the individuals or groups about whom we wish to generalize.
- Social science methods can reduce the risk of selective or inaccurate observation by requiring that we measure and sample phenomena systematically.
- To avoid illogical reasoning, social researchers use explicit criteria for identifying causes and for determining whether these criteria are met in a particular instance.
- Scientific methods lessen the tendency to develop answers about the social world from ego-based commitments, excessive devotion to tradition, or unquestioning respect for authority.

Science Versus Pseudoscience

In philosophical terms, the scientific method represents an epistemology—that is, a way of knowing that relies on objective, empirical investigation. Its techniques must be transparent so that the methods, procedures, and data analyses of any study can be replicated. This transparency allows other researchers to see if the same results can be reproduced. If findings can be replicated, then we have greater confidence that the finding is real and not based on bias. Transparency also relies on peer review, the process by which other independent researchers evaluate the scientific merit of the study.

In contrast, if we relied on findings based on intuition, gut reactions, or our own experience, we would be open to the errors we just covered above. If we based findings on this, it would not be science, but instead fall under the classification of pseudoscience. Pseudoscientific beliefs are not based on the scientific method but rather on claims that may be touted as “scientifically proven” but are only bolstered by testimonials of believers who have experienced the event firsthand or who have claimed to have witnessed the phenomenon (Nestor & Schutt, 2012).

Of course, today’s pseudoscience could be yesterday’s science. In criminological research, phrenology is a good example. In the 19th century, phrenology was the belief that bumps and fissures of the skull determined the character and personality of a person. Doctors doing entry examinations at American prisons would examine a new inmate’s head for bumps or cavities to develop a criminal profile. Advances in cognitive psychology and neurol-ogy have largely discredited phrenology and placed it within the domain of pseudoscience. It didn’t take a genius to question phrenology, just a group of researchers adhering to the scientific method. When inmates’ heads were compared with individual heads in the general population, they were essentially the same!
Why We Do Criminological Research

Like you, social scientists read and hear stories about incidents of violence committed by youth, observe this violence occasionally in their lives, and try to make sense of what they see. For most, that is the end of it. But for some social scientists, the problem of youth violence has become a major research focus. The motivations for selecting this particular research focus, as with any social science topic, can be any one or some combination of the following:

**Policy motivations.** Many social service agencies and elected officials seek better assessments and descriptions of youth violence so they can identify needs and allocate responsibility among agencies that could meet these needs. For example, federal agencies such as the U.S. Department of Justice and the Centers for Disease Control and Prevention want to identify the magnitude of youth violence, and many state and local officials use social research to guide development of their social service budgets. Programs designed to rehabilitate young offenders often use research to learn more about the needs of their clientele. These policy guidance and program management needs have resulted in numerous research projects.

**Academic motivations.** Young offenders have been a logical focus for researchers interested in a number of questions, ranging from how an individual’s connection to parents and peers influences his or her behavior to how the social conditions under which the person lives, such as poverty, affect his or her behavior. For example, social scientists have long been concerned with the impact that social disorganization has on individual behavior. In the 1920s, researchers at the University of Chicago were interested in the effects that residential mobility and immigration had on levels of crime and delinquency in urban neighborhoods. Today, researchers are exploring similar questions concerning the impact of disintegrating economic bases in central cities and their relationship to crime and violence. Other researchers have focused on individual-level explanations such as neurological damage. Those who study social policy also have sought to determine whether correctional programs such as boot camps and other forms of shock incarceration serve to decrease the probability of juveniles reoffending in the future.

**Personal motivations.** Many who conduct research on youth violence feel that doing so can help to prevent it or ameliorate the consequences of this violence when it occurs. Some social scientists first volunteered with at-risk youth in such organizations as Big Brothers Big Sisters and only later began to develop a research agenda based on their experiences.

Social Criminological Research in Action

Youth violence always has been a popular topic of social science research. However, the sharp increase in this violence in the United States that began in the late 1980s was unprecedented. Predictably, whenever a phenomenon is perceived as an epidemic, numerous explanations emerge to explain it. Unfortunately, most of these explanations are based on the media and popular culture, not on empirical research. Despite the anecdotal information floating around in the mass media about the factors that may have contributed to increases in youth violence, social scientists interested in this phenomenon have amassed a substantial body of findings that have refined knowledge about the problem and shaped social policy (Tonry & Moore, 1998). These studies fall into the four categories of purposes for social scientific research: descriptive, exploratory, explanatory, and evaluation.

**Descriptive Research**

Defining and describing social phenomena of interest are part of almost any research investigation, but descriptive research is the primary focus of many studies of youth crime and violence. Some of the central questions used in these studies were “How many people are victims of youth violence?” “How many youth...
are offenders?” “What are the most common crimes committed by youthful offenders?” and “How many of the different youth are arrested and incarcerated each year for crime?” Descriptive research is not interested in explaining some phenomenon, just in describing its frequency or its qualities. Measurement (see Chapter 4) and sampling (see Chapter 5) are central concerns in descriptive research.

Case Study of Description

How Prevalent Is Youth Violence?

*Police reports.* One of the most enduring sources of information on lethal violence in the United States is the Federal Bureau of Investigation's (FBI) Supplementary Homicide Reports (SHR). Homicide victimization rates indicate that for those under the age of 24, vulnerability to murder increased dramatically during the mid-1980s through about 1994, when rates began a steady decline and have remained relatively stable since (Smith & Cooper, 2013).

Data measuring the prevalence of nonlethal forms of violence such as robbery and assaults are a bit more complicated. How do we know how many young people assault victims each year? People who report their victimizations to police represent one avenue for these calculations. The FBI compiles these numbers in its Uniform Crime Reporting (UCR) system, which is slowly being replaced by the National Incident-Based Reporting System (NIBRS). Both of these data sources rely on state, county, and city law enforcement agencies across the United States to voluntarily participate in the reporting program. Can you imagine why relying on these data sources may be problematic for estimating prevalence rates of violent victimizations? If victimizations are never reported to police, they are not counted. This is especially problematic for victimizations between intimate partners and other offenses such as rape, in which only a fraction of incidents are ever reported to police.

*Surveys.* Instead of police reports, most social scientists believe the best way to determine the magnitude of violent victimization is through random sample surveys. While we will discuss survey methodology in greater detail in Chapter 7, this basically means randomly selecting individuals in the population of interest and asking them about their victimization experiences. The only ongoing annual survey to do this is the National Crime Victimization Survey (NCVS), which is sponsored by the U.S. Department of Justice's Bureau of Justice Statistics (BJS). Among other questions, the NCVS asks questions such as “Has anyone attacked or threatened you with a weapon (for instance, a gun or knife) or by something thrown (such as a rock or bottle)? Include any grabbing, punching, or choking.” Estimates indicate that youth ages 12 to 24 have the highest rates of violent victimization. Despite the recent increases observed in homicide rates for this age group in some locations, their victimization trends have generally declined since the peak of the early 1990s mentioned earlier.

The Youth Risk Behavior Survey (YRBS) is another large research survey that estimates the magnitude of youth violence (along with other risk-taking behavior such as taking drugs and smoking) and has been conducted every two years in the United States since 1990. To measure the extent of youth violence, students are asked questions such as “During the past 12 months, how many times were you in a physical fight?” and “During the past 12 months, how many times were you in a physical fight in which you were injured and had to be seen by a doctor or nurse?”

Of course, another way to measure violence would be to ask respondents about their offending behaviors. Some surveys do this, including the National Youth Survey (NYS) and the Rochester Youth Development Study (RYDS). The RYDS sample consists of 1,000 students who were in the seventh and eighth grades in the Rochester, New York, public schools during the spring semester of the 1988 school year. This project has interviewed the original respondents at 12 different times, including the last interview that took place in 1997, when respondents were in their early twenties (Thornberry, Krohn, Lizotte, & Bushway, 2008). As you can imagine, respondents are typically more reluctant to reveal offending behavior compared with their victimization experiences. However, these surveys have proved to be very useful in examining the factors related to violent offending and other delinquency. We should also point out that although this discussion has been specific to violence, the measures we have discussed in this section, along with their strengths and weaknesses, apply to measuring all types of crime.
Exploratory research seeks to find out how people get along in the setting under question, what meanings they give to their actions, and what issues concern them. The goal is to answer the question “What is going on here?” and to investigate social phenomena without expectations. This purpose is associated with the use of methods that capture large amounts of relatively unstructured information. For example, researchers investigating the emergence of youth gangs in the 1980s were encountering a phenomenon of which they had no direct experience. Thus, an early goal was to find out what it was like to be a gang member and how gang members made sense of their situation.

Research that is exploratory in nature is generally concerned with uncovering detailed information about a given phenomenon, learning as much as possible about particular people and/or events. While there have been far too many school shootings in the United States during the past decade, there have also been numerous incidents in which students were plotting to kill their peers or faculty members but came to the attention of authorities before their plans could be carried out. To examine how these incidents were stopped, Eric Madfis (2014) selected 11 schools where a mass shooting had been diverted between 2000 and 2009 and conducted intensive interviews with people who were involved, including 11 principals and 21 other administrators, teachers, and police officers. He also corroborated the interview data with newspaper reports and, where possible, court transcripts and police incident reports.

Madfis’s (2014) research was truly exploratory. You will learn much more about qualitative research in Chapter 8, but for now, we simply want to highlight how this study is different from the other research types listed above. He let the people he interviewed speak for themselves; he didn’t come with questions that were designed to measure concepts such as violence or delinquency before the interviews. After examining all of the interview transcripts, Madfis developed themes that emerged among them all. This is what made the research exploratory instead of explanatory.

Five out of the 11 school shootings were thwarted by other students who were not directly involved with or entrusted by the accused students but who came about the information indirectly. For example, one student reported the existence of disturbing postings and images on another student’s network website. The second most common category of intervention involved people who had been told directly by students accused of plotting the attacks. For example, after one student was sent threatening messages, she told her mother, who then called the police. When the accused student was questioned, he confessed and weapons were discovered in his bedroom.

School administrators believed that students have been more likely to come forward with information about their peers since the Columbine High School shootings than they had been before this catalyzing mass shooting. One school principal stated, “Columbine absolutely made kids much more vigilant about things going on around them. . . . I think it made kids less afraid to speak up if something wasn’t sitting right with them” (Madfis, 2014, p. 235). Another theme that was clear from the interviews was that if school environments were going to break the “student code of silence,” they must be supporting, cohesive, and trusting. For example, another principal stated, “The best mechanism we have as a deterrent for these sorts of violent acts is good relationships between kids and adults, because kids will tell you” (Madfis, 2014, p. 235).

As you can see from this discussion of Madfis’s results, the goal of his research was to explore the factors related to instances in which a school shooting had been successfully thwarted. He did not go into the school with a survey filled with questions because little is known about these factors in the existing literature. As such, the investigation was explorative in nature. It is different from descriptive, because prevalence estimate of some phenomenon are not the goal. Rather, a deeper understanding of the processes and perceptions of study participants is the desired outcome in exploratory research.
Explanatory research seeks to identify causes and effects of social phenomena, to predict how one phenomenon will change or vary in response to variation in some other phenomenon. Researchers adopted explanation as a principal goal when they began to ask such questions as “Why do people become offenders?” and “Does the unemployment rate influence the frequency of youth crime?” Methods with which to identify causes and effects are the focus of Chapter 6.

When we move from description to exploration and finally to explanatory research, we want to understand the direct relationship between two or more things. Does X explain Y? Or if X happens, is Y also likely to occur? What are some of the factors related to youth violence? Sarah Koon-Magnin and her colleagues (2016) were interested in understanding whether differences in parenting, delinquent peers, and self-control could help explain why male adolescents were more likely to engage in violent delinquency compared to female adolescents. They collected surveys from a sample of 833 high school and middle school students. To measure violent offending, the survey asked students whether they had engaged in several behaviors in the past year, including carrying a hidden weapon, hitting someone with the idea of hurting him or her, attacking someone with a weapon, using force to get something from someone, being in a gang fight, or shooting someone when someone told them to do so.

Parental supervision was measured with several variables including questions like “When you are away from home, do your parents know where you are and who you are with?” To measure peer influence, students were asked to respond to several questions about whether they went along with peers who encouraged vandalism, drinking, skipping school, and so on. Students’ self-control was measured by their agreement to several questions including “Sometimes you have to physically fight to get what you want.” In addition to these questions, other factors were also controlled in the models predicting violent behavior, including whether the student participated in a gang, whether one or both of their parents had been “in trouble with the police,” and other demographic controls. Results indicated that males reported engaging in a greater variety of violent offending than females, but females had higher levels of self-control and were more heavily monitored by their parents than males. When predicting violent offending, however, males appeared to be more influenced by their peers than females. However, males were still more likely to engage in violence even after controlling for their self-control, parental supervision, and peer influence. The authors concluded, “This study suggests that gender remains a critical consideration in studies of delinquent behavior” (2016, p. 834).

Evaluation research seeks to determine the effects of a social program or other type of intervention. It is a type of explanatory research because it deals with cause and effect. However, evaluation research differs from other forms of explanatory research because it considers the implementation and outcomes of social policies and programs. These issues may not be relevant in other types of explanatory research. The increase of youth violence in the 1980s spawned many new government programs and, with them, evaluation research to assess the impact of these programs. Some of these studies are reviewed in Chapter 10, which covers evaluation research.

As many school administrators will tell you, there are direct mail, e-mail, and in-person direct sales efforts to sell them programs that reduce violence, increase empathy among students, promote a positive school environment, promote other forms of mental well-being, and on and on. Unfortunately, not many of these
programs have been rigorously evaluated to ensure that they actually do what they promise. One program that has been the target of rigorous evaluation is the Gang Resistance Education and Training (G.R.E.A.T.) program, which is a school-based gang and violence prevention program. This program is a cognitive-based program intended to (among other things) teach students about crime and its effects on victims, how to resolve conflicts without violence, and how to improve individual responsibility through goal setting. The G.R.E.A.T. program addresses multiple risk factors for violent offending among three domains: school, peer, and individual. Because it is curriculum-based in the school, it does not address risk factors present in the family or neighborhood. It is a 13-week program taught in sixth or seventh grade and attempts to affect several risk factors, including school commitment and performance, association with conventional or delinquent peers, empathy, and self-control, among others.

Finn-Aage Esbensen and his colleagues (Esbensen, Osgood, Peterson, Taylor, & Carson, 2013) evaluated the long-term effects of the G.R.E.A.T. program in seven cities across the United States. Schools selected for the program randomly assigned some seventh-grade classrooms to get the treatment (experimental groups) while the other classrooms did not (control groups). As you will later learn, this is called a true experimental design. It is an extremely strong research method for determining the effects of programs or policies because if groups are truly randomly assigned, there is a strong reason to believe that differences between the groups after program implementation, such as reduced violent offending, are because of the program and not some other factor that existed before the introduction of the treatment.

Both experimental and control group students in the Esbensen et al. (2013) study completed four follow-up surveys annually for four years. The researchers examined 33 outcome measures, including general delinquency, violent offending, gang affiliation, associations with delinquent peers, empathy, impulsivity, and problem solving. The statistical methods employed by Esbensen and his colleagues are very complicated and beyond the scope of this text, so we will simply highlight the general findings. When the data for all seven sites were combined, there were no differences in violent offending between experimental and control group students over the four-year period. Those students who participated in the G.R.E.A.T. program were, however, less likely to become members of gangs, had higher levels of altruism, showed less anger and risk taking, and had more favorable attitudes toward the police, among other things.

With these results, would you deem the G.R.E.A.T. program a success? These are the important questions evaluation research must address. Esbensen et al. (2013) agree that the program did not reduce general delinquency or violent offending but note that it was effective in reducing gang membership, which is also a risk factor for violent offending.

Social Research Philosophies

What influences the decision to choose one research strategy over another? The motive for conducting research is critical. The type of research questions we are answering is often influenced by a particular research philosophy.

Positivism and Postpositivism

A researcher’s philosophical perspective on reality and on the appropriate role of the researcher also will shape his or her choice of methodological preferences. Researchers with a philosophy of positivism believe that an objective reality exists apart from the perceptions of those who observe it; the goal of science is to better understand this reality.

Whatever nature “really” is, we assume that it presents itself in precisely the same way to the same human observer standing at different points in time and space. . . . We assume that it also presents itself in precisely the same way across different human observers standing at the same point in time and space. (Wallace, 1983, p. 461)

This philosophy is traditionally associated with science (Weber, 1949), with the expectation that there are universal laws of human behavior, and with the belief that scientists must be objective and unbiased to see reality clearly.

Positivism The belief that there is a reality that exists quite apart from our own perception of it, although our knowledge of this reality may never be complete.
A SCHOOL SHOOTING EVERY WEEK?

This article investigates a quote by Senator Chris Murphy (D-Conn) who said, “Since Sandy Hook, there has been a school shooting, on average, every week.” He made this statement on the Senate floor after the killing of nine people at a prayer meeting in Charleston, South Carolina. This is not the first time this statistic has been used, but where did it come from? The article reports that it was calculated by a group called “Everytown for Gun Safety” that has counted the tally of school shootings since the Sandy Hook Elementary School shooting as 126 as of June 8, 2015. How does the group define a school shooting? Any incident in which a firearm was discharged inside a school building or on school or campus grounds, as documented by the press or confirmed through further inquiries with law enforcement, was deemed a school shooting.

1. Does this definition of school shootings capture what we typically mean by a school shooting? For example, it would include accidental shootings as well as suicides or attempted suicides.

2. What other types of incidents would be included in this definition that we don’t typically associate with school shootings? What definition would you use if you were going to measure the incidence of school shootings?


Postpositivism is a philosophy of reality that is closely related to positivism. Postpositivists believe that there is an external, objective reality, but they are sensitive to the complexity of this reality and the limitations of the scientists who study it. Social scientists in particular recognize the biases they bring to their research, as they are social beings themselves (Guba & Lincoln, 1994). As a result, they do not think scientists can ever be sure that their methods allow them to perceive objective reality. Rather, the goal of science can only be to achieve intersubjective agreement among scientists about the nature of reality (Wallace, 1983). For example, postpositivists may worry that researchers’ predispositions may bias them in favor of deterrence theory. Therefore, they will remain somewhat skeptical of results that support predictions based on deterrence until a number of researchers feel that they have found supportive evidence. The postpositivist retains much more confidence in the ability of the community of social researchers to develop an unbiased account of reality than in the ability of any individual social scientist to do so (Campbell & Russo, 1999).

Positivist Research Guidelines

To achieve an accurate understanding of the social world, a researcher operating within the positivist or postpositivist tradition must adhere to some basic guidelines about how to conduct research:

1. Test ideas against empirical reality without becoming too personally invested in a particular outcome. This guideline requires a commitment to “testing” as opposed to just reacting to events as they happen or looking for what we want or expect to see (Kincaid, 1996, pp. 51–54).
2. **Plan and carry out investigations systematically.** Social researchers have little hope of conducting a careful test of their ideas if they do not fully think through in advance how they should go about the test and then proceed accordingly.

3. **Document all procedures and disclose them publicly.** Social researchers should disclose the methods on which their conclusions are based so that others can evaluate for themselves the likely soundness of these conclusions (Kincaid, 1996).

4. **Clarify assumptions.** No investigation is complete in itself. Whatever the researcher’s method(s), the effort rests on some background assumptions. For example, research to determine whether arrest has a deterrent effect assumes that potential law violators think rationally and that they calculate potential costs and benefits prior to committing crimes.

5. **Specify the meanings of all terms.** Words often have multiple or unclear meanings. Recidivism, self-control, poverty, overcrowded, and so on can mean different things to different people. In scientific research, all terms must be defined explicitly and used consistently.

6. **Maintain a skeptical stance toward current knowledge.** The results of any particular investigation must be examined critically, although confidence about interpretations of the social or natural world increases after repeated investigations yield similar results.

7. **Replicate research and build social theory.** No one study is definitive by itself. We cannot fully understand a single study’s results apart from the larger body of knowledge to which it is related, and we cannot place much confidence in these results until the study has been replicated.

8. **Search for regularities or patterns.** Positivist and postpositivist scientists assume that the natural world has some underlying order of relationships so that unique events and individuals can be understood at least in part in terms of general principles (Grinnell, 1992).

Real investigations by social scientists do not always include much attention to theory, specific definitions of all terms, and so forth. However, all social researchers should be compelled to study these guidelines and to consider the consequences of not following any with which they do not agree.

**A Positivist Research Goal: Advancing Knowledge**

The goal of the traditional positivist scientific approach is to advance scientific knowledge. This goal is achieved when research results are published in academic journals or presented at academic conferences.

The positivist approach regards value considerations to be beyond the scope of science. In Max Weber’s (1949) words, “An empirical science cannot tell anyone what he should do—but rather what he can do—and under certain circumstances—what he wishes to do” (p. 54). The idea is that developing valid knowledge about how society is organized, or how we live our lives, does not tell us how society should be organized or how we should live our lives. The determination of empirical facts should be a separate process from the evaluation of these facts as satisfactory or unsatisfactory (p. 11).

**Interpretivism and Constructivism**

Qualitative research is often guided by a philosophy of interpretivism. Interpretive social scientists believe that reality is socially constructed and that the goal of social scientists is to understand what meanings people give to reality, not to determine how reality works apart from these interpretations. This philosophy...
rejects the positivist belief that there is a concrete, objective reality that scientific methods help us to understand (Lynch & Bogen, 1997); instead, interpretivists believe that scientists construct an image of reality based on their own preferences and prejudices and their interactions with others.

Here is the basic argument: The empirical data we collect all come to us through our own senses and must be interpreted with our own minds. This suggests that we can never be sure that we have understood reality properly, or that we ever can, or that our own understandings can really be judged more valid than someone else’s.

Searching for universally applicable social laws can distract from learning what people know and how they understand their lives. The interpretive social researcher examines meanings that have been socially constructed. . . . There is not one reality out there to be measured; objects and events are understood by different people differently, and those perceptions are the reality—or realities—that social science should focus on. (Rubin & Rubin, 1995, p. 35)

The paradigm of constructivism extends interpretivist philosophy by emphasizing the importance of exploring how different stakeholders in a social setting construct their beliefs (Guba & Lincoln, 1989). It gives particular attention to the different goals of researchers and other participants in a research setting and seeks to develop a consensus among participants about how to understand the focus of inquiry. The constructivist research report will highlight different views of the social program or other issues and explain how a consensus can be reached among participants.

Constructivist inquiry uses an interactive research process in which a researcher begins an evaluation in some social settings by identifying the different interest groups in those settings. The researcher goes on to learn what each group thinks and then gradually tries to develop a shared perspective on the problem being evaluated (Guba & Lincoln, 1989).

Feminist research is a term used to refer to research done by feminists (Reinharz, 1992, pp. 6–7) and to a perspective on research that can involve many different methods (Reinharz, 1992, p. 240). The feminist perspective on research includes the interpretivist and constructivist elements of concern with personal experience and subjective feelings and with the researcher’s position and standpoint. Feminist researchers Sharlene Hesse-Biber and Patricia Lina Leavy (2007) emphasize the importance of viewing the social world as complex and multilayered, of sensitivity to the impact of social differences, of being an “insider” or an “outsider,” and of being concerned with the researcher’s position. African American feminist researcher Patricia Hill Collins (1991) suggests that researchers who are sensitive to their “outside” role within a social situation may have unique advantages: “Outsiders within occupy a special place—they become different people and their difference sensitizes them to patterns that may be more difficult for established sociological insiders to see” (p. 53).

### Interpretivist/Constructivist Research Guidelines

Researchers guided by an interpretivist philosophy reject some of the guidelines to which positivist researchers seek to adhere. In fact, there is a wide variety of specific approaches that can be termed interpretivist, and each has some guidelines that it highlights. For those working within the constructivist perspective, Guba and Lincoln (1989) suggest four key steps for researchers, each of which may be repeated many times in a given study:

1. Identify stakeholders and solicit their “claims, concerns, and issues.”
2. Introduce the claims, concerns, and issues of each stakeholder group to the other stakeholder groups and ask for their reactions.
3. Focus further information collection on claims, concerns, and issues about which there is disagreement among stakeholder groups.

4. Negotiate with stakeholder groups about the information collected, and attempt to reach consensus on the issues about which there is disagreement (p. 42).

**An Interpretivist Research Goal: Creating Change**

Some social researchers with an interpretivist or constructivist orientation often reject explicitly the traditional positivist distinction between facts and values (Sjoberg & Nett, 1968). Bellah et al. (1985) have instead proposed a model of “social science as public philosophy.” In this model, social scientists focus explicit attention on achieving a more just society:

1. Social science makes assumptions about the nature of persons, the nature of society, and the relation between persons and society. It also, whether it admits it or not, makes assumptions about good persons and a good society and considers how far these conceptions are embodied in our actual society.

2. Social science as public philosophy, by breaking through the iron curtain between the social sciences and the humanities, becomes a form of social self-understanding or self-interpretation. By probing the past as well as the present, by looking at “values” as much as at “facts,” such a social science is able to make connections that are not obvious and to ask difficult questions. (p. 301)

Whyte (1991) proposed a more activist approach to research called *participatory action research* (PAR). As the name implies, this approach encourages social researchers to get “out of the academic rut” and bring values into the research process (p. 285). In PAR, the researcher involves as active participants some members of the setting studied. Both the organizational members and the researcher are assumed to want to develop valid conclusions, to bring unique insights, and to desire change, but Whyte (1991) believed these objectives were more likely to be obtained if the researcher collaborated actively with the persons he or she studied. We will talk about PAR in Chapter 12.

**An Integrated Philosophy**

It is tempting to think of positivism and postpositivism as representing an opposing research philosophy to interpretivism and constructivism. Then it seems that we should choose the one philosophy that seems closest to our own preferences and condemn the other as “unscientific,” “uncaring,” or perhaps just “unrealistic.” But there are good reasons to prefer a research philosophy that integrates some of the differences between these philosophies (Smith, 1991).

And what about the important positivist distinction between facts and values in social research? Here, too, there is evidence that neither the “value-free” presumption of positivists nor the constructivist critique of this position is entirely correct. For example, Savelsberg, King, and Cleveland (2002) examined influences on the focus and findings of published criminal justice scholarship. They found that criminal justice research was more likely to be oriented to topics and theories suggested by the state when it was funded by government agencies. This reflects a political influence on scholarship. However, government funding did not have any bearing on the researchers’ conclusions about the criminal justice processes they examined. This suggests that scientific procedures can insulate the research.

Which philosophy makes the most sense to you? Do you agree with positivists and postpositivists that scientific methods can help us understand the social world as it is, not just as we would like to think it is, or does the interpretivist focus on meanings make more sense to you? As we noted in Chapter 1, many scholars are beginning to advance mixed-methods approaches to research that rely on both philosophies. We highlight mixed-methods approaches throughout this book.
and Chapter 11 focuses exclusively on the relative strengths of single-method approaches versus a mixed-methods approach. We argue that there is value to both positivist and interpretivist philosophies and that there are good reasons to prefer an integrated philosophy. Researchers influenced by a positivist philosophy should be careful to consider how their own social backgrounds shape their research approaches and interpretations, just as interpretivist researchers caution us to do. Researchers influenced more by an interpretivist philosophy should be careful to ensure that they use rigorous procedures to check the trustworthiness of their interpretations of data (Riessman, 2008). If we are not willing to ask hard questions about our research and the evidence we collect, we are not ready to investigate the social world.

### Quantitative and Qualitative Methods

As you might expect, different research philosophies often are related to the selection of different research methods. Importantly, however, we want to make clear that the research question or purpose should always dictate the research method. This will become more obvious when you read each specific methodology chapter. However, in general, research methods can be divided into two somewhat different domains called quantitative research methods and qualitative research methods. Did you notice the difference between the types of data the case studies discussed at the beginning of the chapter used? The data collected in the YRBS were counts of the responses students gave on the survey. These data were numerical, so we say that this study used quantitative methods. In contrast, Madfis’s (2014) exploratory study used in-depth interviews with school administrators who had helped prevent an attempted school shooting. This methodology was designed to capture the social reality of the participants as they experienced it, in their own words, rather than in predetermined categories. This inquiry is clearly consistent with the constructivist philosophy. Because the researchers focused on the participants’ words rather than counts and numbers, we say that this study used qualitative methods.

The distinction between quantitative and qualitative methods involves more than just the type of data collected. Quantitative methods are most often used when the motives for research are explanation, description, or evaluation. Exploration is the most common motive for using qualitative methods, although researchers also use these methods for descriptive and evaluative purposes. The goals of quantitative and qualitative researchers also may differ. Whereas quantitative researchers generally accept the goal of developing an understanding that correctly reflects what is actually happening in the real world, some qualitative researchers instead emphasize the goal of developing an “authentic” understanding of a social process or social setting (Gubrium & Holstein, 1997). An authentic understanding is one that reflects fairly the various perspectives of participants in that setting.

As important as it is, we do not want to place too much emphasis on the distinction between qualitative and quantitative methods because social scientists often combine these methods to enrich their research. For example, “qualitative knowing” about social settings can be essential for understanding patterns in quantitative data (Campbell & Russo, 1999, p. 141). Qualitative data can be converted to quantitative data, for example, when we count the frequency of particular words or phrases in a text or measure the time elapsed between different behaviors that we have observed. Surveys that collect primarily quantitative data also may include questions asking for written responses, and these responses may be used in a qualitative, textual analysis. Researchers using quantitative methods may engage in some exploration to find unexpected patterns in their data. Qualitative researchers may test explicit explanations of social phenomena using textual or observational data.

As noted, many researchers are electing to garner the strengths of both quantitative and qualitative research philosophies and rely on mixed methods.

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**Quantitative methods** Methods such as surveys and experiments that record variation in social life in terms of categories that vary in amount. Data that are treated as quantitative are either numbers or attributes that can be ordered in terms of magnitude.

**Qualitative methods** Methods such as participant observation, intensive interviewing, and focus groups that are designed to capture social life as participants experience it rather than in categories predetermined by the researcher. Data that are treated as qualitative are mostly written or spoken words or observations that do not have a direct numerical interpretation.

**Mixed methods** Combining both qualitative and quantitative methods to study one research question.
to study one research question. This is sometimes called triangulation. The latter term suggests that a researcher can get a clearer picture of the social reality being studied by viewing it from several different perspectives. Each will have some liabilities in a specific research application, and all can benefit from a combination of one or more other methods (Brewer & Hunter, 1989; Sechrest & Sidani, 1995).

As you will see in the chapters that follow, the distinction between quantitative and qualitative data is not always sharp. We’ll examine such “mixed method” possibilities in each of the chapters that review specific methods of data collection.

## Specific Types of Research Methods

As you will see in this book, the data we utilize in criminological research are derived from many different sources, and the research methods we employ in criminology and criminal justice are very diverse. In this section, we are going to highlight a few of the methods that will be covered later in the book.

An experimental approach is used in criminological research, particularly when the efficacy of a program or policy is being evaluated. As we will see in Chapter 6, true experiments must have three things: two groups (one receiving the treatment or intervention and the other receiving no treatment or another form thereof), random assignment to these two groups, and an assessment of change in the outcome variable after the treatment or policy has been received. Quasi-experimental designs, experiments that lack one of these three ingredients, also are used in our discipline. Chapter 11 focuses exclusively on research designs used in evaluation research.

Asking people questions on surveys or questionnaires, as we have highlighted, is another popular method used by criminological researchers and is probably the most versatile. Most concepts about individuals can be defined in such a way that measurement with one or more questions becomes an option. These surveys can be self-administered by respondents (e.g., through the mail) or can be read by an interviewer (e.g., through a telephone survey).

Although in principle survey questions can be a straightforward and efficient means to measure individual characteristics, facts about events, levels of knowledge, and opinions of any sort in practice survey questions can result in misleading or inappropriate answers. All questions proposed for a survey must be screened carefully for their adherence to basic guidelines and then tested and revised until the researcher feels some confidence that they will be clear to the intended respondents (Fowler, 1995). Some variables may prove to be inappropriate for measurement with any type of question. We have to recognize that memories and perceptions of the events about which we might like to ask can be limited. Specific guidelines for writing questions and developing surveys are presented in Chapter 7.

In other cases, a researcher may want to make his or her presence known and directly participate in the activity being observed. Included in this type of research design is participant observation, which involves developing a sustained relationship with people while they go about their normal activities. In other instances, the subject matter of interest may not be amenable to a survey, or perhaps we want more detailed and in-depth information than questions with fixed formats can answer. In these cases, we turn to research techniques such as participant observation and intensive interviewing. These methods are preferred when we seek in-depth information on an individual’s feelings, experiences, and perceptions. Chapter 8 shows how these methods and other field research techniques can uncover aspects of the social world that we are likely to miss in experiments and surveys.

### Definitions

<table>
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<tr>
<th>Term</th>
<th>Description</th>
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<tr>
<td>Triangulation</td>
<td>The use of multiple methods to study one research question; also used to mean the use of two or more different measures of the same variable</td>
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<tr>
<td>Experimental approach</td>
<td>An approach in which the researcher assigns individuals to two or more groups in a way that equates the characteristics of individuals in the groups (with a certain chance of error), except for variation in the groups' exposure to the independent variable</td>
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<tr>
<td>Surveys</td>
<td>Popular and versatile research instruments using a question format; surveys can either be self-administered or read by an interviewer</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>The instrument containing the questions on a self-administered survey</td>
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<tr>
<td>Participant observation</td>
<td>Field research in which a researcher develops a sustained and intensive relationship with people while they go about their normal activities</td>
</tr>
<tr>
<td>Intensive interviewing</td>
<td>Open-ended, relatively unstructured questioning in which the interviewer seeks in-depth information on the interviewee’s feelings, experiences, and/or perceptions</td>
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Secondary data analysis (Riedel, 2000), which is the reanalysis of already existing data, is another method used by researchers. These data usually come from one of two places: from official sources such as local or federal agencies (e.g., rates of crime reported to police, information on incarcerated offenders from state correctional authorities, or adjudication data from the courts) or from surveys sponsored by government agencies or conducted by other researchers. Virtually all the data collected by government agencies and a great deal of survey data collected by independent researchers are made available to the public through the Inter-University Consortium for Political and Social Research (ICPSR), which is located at the University of Michigan. When documents from the past, such as correspondence, newspaper accounts, and trial transcripts, are analyzed, the research is generally termed historical events research. Another type of indirect measurement is called content analysis. In this type of study, a researcher studies representations of the research topic in media forms such as news articles, TV shows, and radio talk shows. An investigation of the drinking climate on campuses might examine the amount of space devoted to ads for alcoholic beverages in a sample of issues of the student newspaper. Campus publications also might be coded to indicate the number of times that statements discouraging substance abuse appear. Content analysis techniques also can be applied to legal opinions, historical documents, novels, songs, or other cultural productions. With the advent of computer technology, crime mapping also has become a popular method for examining the relationship between criminal behavior and other social indicators. Chapter 9 covers each of these methodologies and illustrates the importance of these unobtrusive research techniques in criminology and criminal justice. Increasingly, researchers are combining methods to more reliably answer a single research question. Although examples of mixed-methods research are highlighted in several chapters, Chapter 11 provides an overview of the philosophy and motivation for combining methods, along with the various techniques for doing so.

All research begins with a research question and then a formal process of inquiry. Chapter 2 provides an overview of the research circle from both a deductive and inductive perspective using the empirical literature on arrest and intimate partner assault as a case study. All research must also grapple with conceptualization and measuring constructs, including the extent to which these measures are valid and reliable. Chapter 4 examines these issues, followed by a discussion of sampling in Chapter 5. Of course, all research, regardless of the methodology selected, requires that it be carried out ethically with special protections afforded the participants under study. Although every chapter that details a specific type of research method concludes with a section on ethics related to that method, Chapter 3 is devoted exclusively to the steps required to ensure research is conducted ethically.

### Strengths and Limitations of Social Research

These case studies are only four of the hundreds of studies investigating youth violence, but they illustrate some of the questions criminological research can address, several different methods social scientists studying these issues can use, and ways criminological research can inform public policy. Notice how each of the four studies was designed to reduce the errors common in everyday reasoning:

- The clear definition of the population of interest in each study and the selection of a broad, representative sample of that population in two studies increased the researchers’ ability to draw conclusions without overgeneralizing findings to groups to which they did not apply.

- The use of surveys in which each respondent was asked the same set of questions reduced the risk of selective or inaccurate observation.
• The risk of illogical reasoning was reduced by carefully describing each stage of the research, clearly presenting the findings, and carefully testing the basis for cause-and-effect conclusions.

• Resistance to change was reduced by using an experimental design that randomly assigned classes to an experimental treatment (the G.R.E.A.T program) and a control group to fairly evaluate the efficacy of the program.

Nevertheless, it would be misleading to suggest that simply engaging in criminological research will result in the unveiling of absolute truths! Research always has its flaws and limitations (as does any human endeavor), and findings are always subject to differing interpretations. Social research allows us to consider and reveal more, to observe with fewer distortions, and to describe more clearly to others the basis for our opinions, but it will not settle all arguments. Other people will always have differing opinions, and some opposition will come from other social scientists who have conducted their own studies and drawn different conclusions. For example, we must ask ourselves if programs similar to G.R.E.A.T. would reduce levels of violence for younger students. Until more scientific research is conducted to evaluate these programs, it is difficult to determine whether these programs should be more widely implemented.

CAREERS AND RESEARCH

Grant A. Bacon, BA, Research Associate, Center for Drug and Health Studies, University of Delaware

Grant Bacon graduated with degrees in history, education, and political science from the University of Delaware in 1998. He initially aspired to give back to the community, especially by helping young people as a teacher. Although he started out teaching, he found his calling by working more directly with at-risk youth as a court liaison and eventually program coordinator for a juvenile drug court/drug diversion program. It was during his time working with these drug court programs that Grant first came into contact with the University of Delaware’s Center for Drug and Health Studies (CDHS), which was beginning an evaluation of the drug court programs in New Castle County, Delaware. In 2001, he accepted an offer to become a research associate with CDHS, where he has continued to work on many different research projects. Two of his most recent projects include research that investigated the factors affecting the reentry experience for inmates returning to the community and another evaluating the parole program called “Decide Your Time.”

Grant is happy to be working in the field on both qualitative and quantitative research. He loves working with people who share a vision of using research findings to help people in a number of ways, and to give back to the world in a meaningful manner. Every day is different. Some days, Grant and other associates are on the road visiting criminal justice or health related facilities or are trying to locate specific individual respondents or study participants. Other days, he may be gathering data, doing intensive interviewing, or administering surveys. He thinks the most rewarding part of his job is helping people who have been part of the criminal justice system and giving them a voice.

Grant’s advice to students interested in research is the following:

If doing research interests you, ask your teachers how you can gain experience through internships or volunteering. Be sure to network with as many people from as many human services organizations as possible. Being familiar with systems like GIS (geographic information systems) and data analyses is becoming important as well. If you did not receive this training during your undergraduate studies, many community colleges offer introductory and advanced classes in GIS, Microsoft Excel, Access, and SPSS. Take them!
But even in areas of research that are fraught with controversy, where social scientists differ in their interpretations of the evidence, the quest for new and more sophisticated research has value. What is most important for improving understanding of the social world and issues in criminology is not the results of any one particular study but the accumulation of evidence from different studies of related issues. By designing new studies that focus on the weak points or controversial conclusions of prior research, social scientists contribute to a body of findings that gradually expands our knowledge about the social world and resolves some of the disagreements about it.

Whether you plan to conduct your own research projects, read others’ research reports, or even just listen to or read claims about social reality in the media, knowing about research methods has many benefits. This knowledge will give you greater confidence in your own opinions, improve your ability to evaluate others’ opinions, and encourage you to refine your questions, answers, and methods of inquiry about the social world.

Of course, the methods of social science, as careful as they may be, cannot answer all questions of interest to criminologists. Should we do unto others as we would have them do unto us? Does anyone deserve the fate he or she receives? Are humans inherently good or evil? These are all very important questions that have been asked throughout history, but we must turn to religion or philosophy to answer questions about values. Social research on the consequences of forgiveness or the sources of interpersonal conflict may help us understand and implement our values, but even the best research cannot tell us which values should guide our lives.

**Conclusion**

We hope this first chapter has given you an idea of what to expect in the rest of this book. Our aim is to introduce you to social research methods by describing what social scientists have learned about issues in criminology and criminal justice as well as how they tackled systematic challenges in conducting their research. For many students, the substance of social science inevitably is more interesting than the research methods used to bring those findings to light. However, in this volume, you will see that the research methods not only demand interest and merit but are also fundamental to our understanding of criminology and criminal justice. We have focused attention on research on youth violence and delinquency in this chapter; in subsequent chapters, we will introduce research examples from other areas.

Chapter 2 continues to build the foundation for our study of social research by reviewing the types of problems that criminologists study, the role of theory, the major steps in the research process, and other sources of information that may be used in social research. We stress the importance of considering scientific standards in social research and reviewing generally accepted ethical guidelines. Throughout the chapter, we use several studies of domestic violence to illustrate the research process.

**Key Terms**

Constructivism 14  
Content analysis 18  
Crime mapping 18  
Descriptive research 7  
Epistemology 6  
Evaluation research 10  
Experimental approach 17  
Explanatory research 10  
Exploratory research 9  
Feminist research 14  
Historical events research 18  
Illogical reasoning 5  
Inaccurate observation 4  
Intensive interviewing 17  
Interpretivism 13  
Intersubjective agreement 12  
Mixed methods 16  
Overgeneralization 4  
Participant observation 17  
Participatory action research (PAR) 15  
Peer review 6  
Phenology 6  
Positivism 11  
Postpositivism 12  
Pseudoscience 6  
Qualitative methods 16  
Quantitative methods 16  
Questionnaire 17  
Resistance to change 5  
Secondary data analysis 18  
Selective observation 4  
Science 6  
Social science 5  
Surveys 17  
Transparent 6  
Triangulation 17
Criminological research cannot resolve value questions or provide answers that will convince everyone and remain settled for all time.

All empirically based methods of investigation are based on either direct experience or others’ statements.

Four common errors in reasoning are overgeneralization, selective or inaccurate observation, illogical reasoning, and resistance to change. Illogical reasoning is due to the complexity of the social world, self-interest, and human subjectivity. Resistance to change may be due to unquestioning acceptance of tradition or of those in positions of authority or to self-interested resistance to admitting the need to change one’s beliefs.

Social science is the use of logical, systematic, documented methods to investigate individuals, societies, and social processes as well as the knowledge produced by these investigations.

Pseudoscience involves claims based on beliefs and/or public testimonials, not on the scientific method.

Criminological research can be motivated by policy guidance and program management needs, academic concerns, and charitable impulses.

Criminological research can be descriptive, exploratory, explanatory, or evaluative or some combination of these.

Positivism is the belief that there is a reality that exists quite apart from one’s own perception of it that is amenable to observation.

Intersubjective agreement is an agreement by different observers on what is happening in the natural or social world.

Postpositivism is the belief that there is an empirical reality but that our understanding of it is limited by its complexity and by the biases and other limitations of researchers.

Interpretivism is the belief that reality is socially constructed and the goal of social science should be to understand what meanings people give to that reality.

The constructivist paradigm emphasizes the importance of exploring and representing the ways in which different stakeholders in a social setting construct their beliefs. Constructivists interact with research subjects to gradually develop a shared perspective on the issue being studied.

Quantitative methods record variation in social life in terms of categories that vary in amount. Qualitative methods are designed to capture social life as participants experience it rather than in categories predetermined by the researcher.

Mixed methods research is the use of multiple methods to study a single research question.

Exercises

Discussing Research

1. What criminological topic or issue would you focus on if you could design a research project without any concern for costs? What are your motives for studying this topic? List at least four of your beliefs about this phenomenon. Try to identify the sources of each belief—for example, television, newspaper, or parental influence.

2. Develop four research questions related to a topic or issue, one for each of the four types of research (descriptive, exploratory, explanatory, and evaluative). Be specific.

3. Find a report of social science research in an article in a daily newspaper. What are the motives for the research? How much information is provided about the research design? What were the major findings? What additional evidence would you like to see in the article to increase your understanding of the findings in the research conclusions?

4. Find a CNN blog discussing some topic about crime. How do your opinions on the subject differ?

5. Outline your own research philosophy. You can base your outline primarily on your reactions to the points you have read in this chapter, but try also to think seriously about which perspective seems more reasonable to you.
Finding Research on the Web

1. You have been asked to prepare a brief presentation on a criminological topic or issue of interest to you. Go to the BJS website (http://www.ojp.usdoj.gov/bjs). Browse the BJS publications for a topic that interests you. Write a short outline for a 5- to 10-minute presentation regarding your topic, including statistics and other relevant information.

2. Go to the FBI website (http://www.fbi.gov). Explore the types of programs and initiatives sponsored by the FBI. Discuss at least three of these programs or initiatives in terms of their purposes and goals. For each program or initiative examined, do you believe the program or initiative is effective? What are the major weaknesses? What changes would you propose the FBI make to more effectively meet the goals of the program or initiative?

3. Go to the website of a major newspaper and find an article discussing the causes of violence. What conclusions does the article draw, and what research methods does the author discuss to back up his or her claims?

4. There are many interesting websites that discuss philosophy of science issues. Read the summaries of positivism and interpretivism at www.misq.org/misq/downloads/download/editorial/25/. What do these summaries add to your understanding of these philosophical alternatives?

Critiquing Research

1. Find a story about a criminological issue in the popular press (e.g., a newspaper or periodical such as Time magazine). Does the article provide a scientific basis for claims made in the story? If rates of crime are reported, does the article discuss how these rates were actually obtained?

2. Read an article in a recent issue of a major criminological journal or on the study site for this book (https://study.sagepub.com/bachmanfrccjsr). Identify the type of research conducted for each study. Are the research questions clearly stated? Can you identify the purpose of the research (e.g., description, explanation, exploration, evaluation)?

3. Continue the debate between positivism and interpretivism with an in-class discussion. Be sure to review the guidelines for these research philosophies and the associated goals. You might also consider whether an integrated philosophy is preferable.

Making Research Ethical

Throughout the book, we will be discussing the ethical challenges that arise in research on crime and criminal justice. At the end of each chapter, we will ask you to consider some questions about ethical issues related to that chapter’s focus. Chapter 3 is devoted to issues of ethics in research, but we will begin here with some questions for you to ponder.

1. You have now learned about the qualitative study by Madfis (2014) about schools that averted a shooting incident. We think it provided important information for policy makers about the social dynamics in these tragedies. But what would you do if you were conducting a similar study in a high school and you learned that another student was planning to bring a gun to school to kill some other students? What if he was only thinking about it? Or just talking with his friends about how “neat” it would be? Can you suggest some guidelines for researchers?

2. If you were part of Esbensen’s research team that evaluated the G.R.E.A.T. violence reduction program in schools, would you announce your findings in a press conference and encourage schools to adopt this program? If you were a school principal who heard about this research, would you agree to let another researcher replicate (repeat) the Esbensen study in your school, with some classrooms assigned to receive the program randomly (on the basis of the toss of a coin) and others not allowed to receive the program for the duration of the study?

Developing a Research Proposal

1. What topic would you focus on if you could design a social research project without any concern for costs? What are your motives for studying this topic?

2. Develop four questions that you might investigate about the topic you just selected. Each question should reflect a different research motive: description, exploration, explanation, or evaluation. Be specific.

3. Which question most interests you? Would you prefer to attempt to answer that question using quantitative or qualitative methods? Why?
Performing Data Analysis in SPSS or Excel

Data for Exercise

<table>
<thead>
<tr>
<th>Dataset</th>
<th>Description</th>
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<tbody>
<tr>
<td>2013 YRBS.sav</td>
<td>The 2013 YRBS is a national study of high school students. It focuses on gauging various behaviors and experiences of the adolescent population, including substance use and some victimization.</td>
</tr>
<tr>
<td>Monitoring the Future 2013 grade 10.sav</td>
<td>This dataset contains variables from the 2013 Monitoring the Future (MTF) study. These data cover a national sample of tenth graders, with a focus on monitoring substance use and abuse.</td>
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Variables for Exercise

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Q44 (YRBS)</td>
<td>A seven-category ordinal measure that asked how many times the respondent drank five or more beverages in one sitting in the past 30 days</td>
</tr>
<tr>
<td>V7108 (MTF)</td>
<td>A six-category ordinal measure that asked how many times the respondent drank five or more drinks in a row in the past two weeks</td>
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</tbody>
</table>

First, load the “2013 YRBS.sav” file and look at the following:

1. Create a bar chart of variable “q44” by following the menu options “graphs->legacy dialogues->bar.” Select the “simple bar chart” option and click the arrow to add “q44” to the category axis text box. At a glance, what does this bar graph tell us about binge drinking among high school students?
   a. Are the data on the YRBS qualitative or quantitative? How do you know?

2. Write at least four research questions based on the bar graph you’ve created. Try to make one for each type of social research (descriptive, exploratory, explanatory, and evaluative). Think about the following: What sticks out to you in this graph? Where do you need more information? Who should the research focus on?

3. Explain the possible reasons (policy, academic, or personal) for why we might want to research binge drinking or the lack thereof. What organizations might be interested in this kind of research?

4. Create a bar chart of variable “v7108.” How do the estimates of binge drinking in the YRBS compare to these results? If there are any major differences, what do you think could explain them?

StUDENT STUDY SITE

The companion Student Study Site for Fundamentals of Research in Criminology and Criminal Justice can be found at https://study.sagepub.com/bachmanfrccj4e.

Visit the Student Study Site to enhance your understanding of the chapter content and to discover additional resources that will take your learning one step further. You can enhance your understanding of the chapters by using the comprehensive study material, which includes SAGE journal and reference articles, e-flashcards, quizzes, multimedia links, and more.