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## 2

## THE PROCESS AND PROBLEMS OF SOCIAL RESEARCH

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## LEARNING OBJECTIVES

Upon completion of this chapter, the reader should be able to

- 2.1 Appraise social research questions based on their feasibility, social importance, and scientific relevance
- 2.2 Compare the concepts of “theory” and “paradigm”
- 2.3 Devise a strategy for searching the literature and the web about a research question
- 2.4 Design a literature review for a research question
- 2.5 Assess whether a research project is designed to answer primarily a deductive or an inductive research question
- 2.6 Compare the four standards for social research: measurement validity, generalizability, causal validity, and authenticity

Michael Brown, Eric Garner, George Floyd. Their names and those of many other Black victims of police shootings highlight racial disparities in the U.S. criminal justice system. Over their lifetimes, we now know the risk of Black men being killed by police is about 2.5 times higher than it is for white men (Figure 2.1). But even as widespread protests erupted after the 2014 fatal shooting of Michael Brown in Ferguson, Missouri, “the absence of definitive official data” made it difficult to estimate the prevalence of police-involved deaths (Edwards, Lee, and Esposito 2019:16793). Then-FBI director James Comey called this lack of adequate data “unacceptable” and “embarrassing” (Peeples 2019). Distinguished criminologist Lawrence W. Sherman (2020:8) called for “reflective inquiry,”

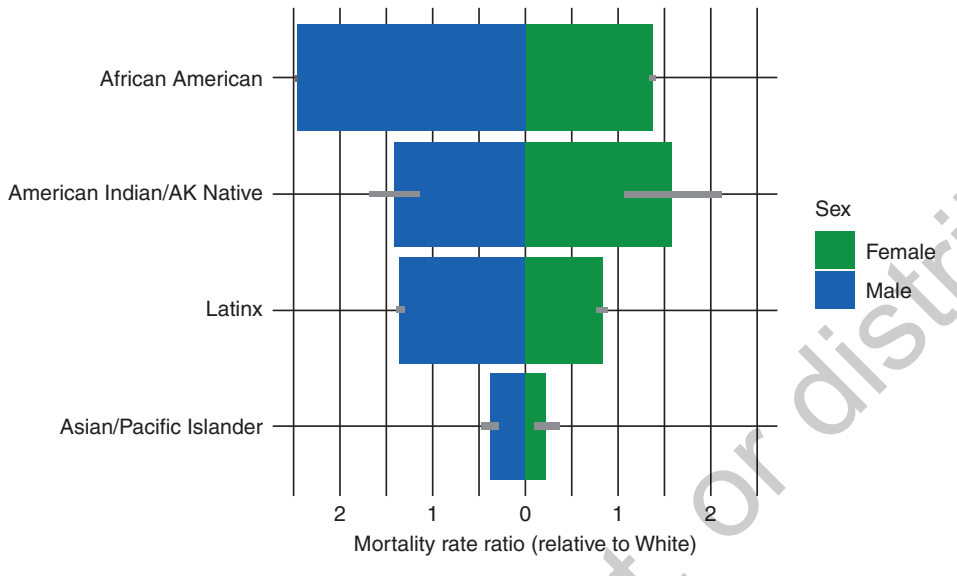
Undertaken by a range of talents, disciplines, and professions, working together to ask now not just how each death might be prevented, but how patterns of death might be predicted and interrupted.

In the years since Ferguson, systematic data collection and many social science investigations have allowed credible estimates of the prevalence of police shootings, answered many questions about who is more likely to be shot by police, and tested various ways of reducing the likelihood of police shootings. The resulting research provides many compelling examples of social science in practice and more than a few indications of its limitations. I will discuss several of these research studies and other policing-related research in this chapter to illustrate how social scientists formulate questions for research, develop a foundation in theory and prior research, use different research strategies, and take each of the steps that together make up the research process (see Figure 2.2). The chapter also expands on the role of social theories in developing research questions and guiding research decisions. I will conclude by identifying the standards that guide this process. Appendix A lists questions to ask when reviewing a research article; I refer to these questions when I illustrate the article review process in this chapter.

You will find throughout the chapter examples of how social science research has improved understanding of police behavior and provided a foundation for effective change. By the chapter’s end, you should be ready to formulate a research question about any issue, critique previous studies that addressed this question, and design a

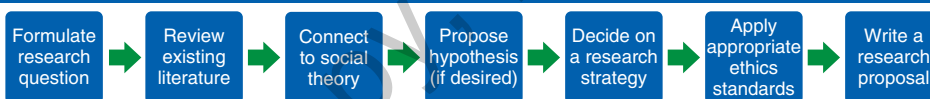
general strategy for answering the question. In the next chapter, you will learn how to review ethical issues and write a research proposal.

**FIGURE 2.1** ■ Inequality in Lifetime Risk of Being Killed by Police Use of Force in the United States



Source: Edwards, Frank, Hedwig Lee, and Michael Esposito. 2019. "Risk of Being Killed by Police Use of Force in the United States by Age, Race–Ethnicity, and Sex." *Proceedings of the National Academy of Sciences of the United States of America* 116(34):16793–16798.

**FIGURE 2.2** ■ Launching a Research Project



## SOCIAL RESEARCH QUESTIONS

A **social research question** is a question about the social world that one seeks to answer through the collection and analysis of firsthand, verifiable, empirical data. It is not a question about who did what to whom but a question about people in groups, about general social processes, or about tendencies in community change, such as the following: What distinguishes police who have had records of unjustified shootings of civilians? Does community policing reduce the crime rate? What influences the likelihood of spouse abuse? How do people react to social isolation? So many research questions are possible that it is more of a challenge to specify what does *not* qualify as a social research question than to specify what does.

But that doesn't mean it is easy to specify a research question. In fact, formulating a good research question can be surprisingly difficult. We can break the process into three stages: (1) identifying one or more questions for study, (2) refining the questions, and then (3) evaluating the questions.

## Identifying Social Research Questions

Social research questions may emerge from your own experience—from your “personal troubles”—as C. Wright Mills (1959) put it. One experience might be membership in a church, another could be victimization by crime, and yet another might be moving from a dorm to a sorority house. You may find yourself asking a question such as, “How do police shootings affect community trust in government?” “In what ways do people tend to benefit from church membership?” or “How do initiation procedures influence group commitment?” What other possible research questions can you develop based on your own experiences in the social world? Now is a good time to start thinking of research questions that interest you and others (Firebaugh 2008:2).

The research literature is often the best source for research questions. Every article or book will bring new questions to mind. Even if you’re not feeling too creative when you read the literature, most research articles highlight unresolved issues and end with suggestions for additional research. For example, Stephen Wu (2021) concluded an article on the race of a city’s police chief and the incidence of police officer fatal shootings by suggesting, “Further study of the channels through which the race of police leaders impacts the use of deadly force by officers would be a fruitful avenue for further research” (p. 416). A new study could focus on these mechanisms: Do Black police chiefs have a different management style? Do Black and white officers differ in their response to Black police chiefs? Do changes in behavior reflect changes in officer attitudes or supervisory sanctions? Any research article in a journal is likely to suggest other unresolved issues about the research question studied.

Many social scientists find the source of their research questions in social theory. Some researchers spend much of their careers conducting research intended to refine an answer to one research question that is critical for a particular social theory. For example, one theory explains social deviance as resulting from labels that people attach to some behaviors. A researcher could ask whether this “labeling theory” can explain some of the effects of arrest.

Finally, some research questions have very pragmatic sources. You may focus on a research question someone else posed because it seems to be to your advantage to do so. Some social scientists conduct research on specific questions posed by a funding source in what is termed an RFP, a request for proposals. (Sometimes the acronym RFA is used, meaning request for applications.) Others may find support from a government entity or foundation that supports research in specific areas of interest. Joscha Legewie’s (2016) study of racial profiling and the disproportionate use of force was funded by a grant from the Russell Sage Foundation. Anthony Braga and his research collaborators (2020) received funding from the City of Boston and the Rappaport Institute for Greater Boston for their study of the effects of body-worn cameras. Or you may learn that the social workers in the homeless shelter where you volunteer need help with a survey to learn about client needs, which becomes the basis for another research question.

## Refining Social Research Questions

It is even more challenging to focus on a problem of manageable size than it is to come up with an interesting question for research. We are often interested in much more than we can reasonably investigate with limited time and resources. In addition, researchers may worry about staking a research project (and thereby a grant or a grade) on a single problem, and so they may address several research questions at once. Also, it might seem risky to focus on a research question that may lead to results discrepant with our own cherished assumptions about the social world. The

prospective commitment of time and effort for some research questions may seem overwhelming, resulting in a certain degree of paralysis.

The best way to avoid these problems is to develop the research question gradually. Don't keep hoping that the perfect research question will just spring forth from your pen. Instead, develop a list of possible research questions as you go along. At the appropriate time, look through this list for the research questions that appear more than once. Narrow your list to the most interesting, most workable candidates. Revise your research questions and repeat this process as long as it helps improve your research question.

## Evaluating Social Research Questions

In the third stage of selecting a research question, you evaluate the best candidate against the criteria for good social research questions: feasibility, given the time and resources available; social importance; and scientific relevance (King, Keohane, and Verba 1994).

### Feasibility

You must be able to conduct any study within the time and resources available. If time is short, questions that involve long-term change may not be feasible. Another issue is to what people or groups we can expect to gain access. For example, observing social interaction in corporate boardrooms may be taboo. Next, you must consider whether you will have any additional resources, such as research funds or other researchers with whom to collaborate. Remember that there are severe limits on what one person can accomplish. However, you may be able to piggyback your research onto a larger research project. You also must consider the constraints faced because of your schedule, other commitments, and skill level, not to mention what is ethically defensible.

A study of police violence and citizen crime reporting by Matthew Desmond, Andrew V. Papachristos, and David S. Kirk (2016) shows how ambitious a social research question can be, even without major external funding. The key to feasibility in this case was the Milwaukee Police Department's agreement to provide the researchers with data from all 911 calls placed in Milwaukee for the year before and after the publicized beating of a Black man (Frank Jude) by off-duty Milwaukee police officers. Funding from Harvard University (Desmond's home institution) supported the time required to analyze data. Desmond, Papachristos, and Kirk note that other researchers could attempt to repeat their study in other locales that are willing to release administrative records. Of course, students in a research methods class may not be granted access to such data from the local police department, but you will learn in Chapter 14 that many datasets are available for analysis (including records of 911 calls in Boston!). When funding or data access limitations create barriers, you might alter your research question to make it more feasible. For example, you might ask "How do students at my university react to images of police shootings?"

### Social Importance

Social research is not a simple undertaking, so it's hard to justify the expenditure of effort and resources unless you focus on a substantive area that is important. Besides, you need to feel motivated to carry out the study. Nonetheless, "importance" is relative, so for a class assignment, focusing on student reactions to dormitory rules or something similar might be important enough.

For most research undertakings, you should consider whether the research question is important to other people. Will an answer to the research question make a difference for society



or for social relations? Again, Desmond et al's (2016) study of police violence and citizen crime reporting is an exemplary case. But the social sciences are not wanting for important research questions. The June 2021 issue of the *American Sociological Review*—the journal that published the Desmond, Papachristos, and Kirk (2016) article—contained articles on politics and infant health, trauma and nationalism, selling student papers in Uganda, marriage and masculinity in 19 countries, and generosity. All these articles addressed research questions about important social issues, and all raised new questions for additional research.

The examples of good and poor research questions in Table 2.1 give you an idea of how to apply these criteria.

**TABLE 2.1** ■ Evaluating Research Questions

Research Question	Quality	Explanation
Why are there wars?	Poor	Too general
Why is my uncle an alcoholic?	Poor	Too specific
Why are some people more prone to alcoholism than others?	Good	Many feasible ways to investigate
Is there a God?	Poor	Not answerable with empirical research
Are married men happier than those who are not married?	Poor	Abundant research already confirms this. Try a different angle
Does torture increase likelihood of confession to crimes?	Poor	Unethical to study by direct manipulation
Does group living increase housing retention for formerly homeless persons more than living in independent apartments?	Good, depending	Feasible for direct test if millions of dollars to fund residential alternatives

Source: Based on Firebaugh, Glenn. 2008. *Seven Rules for Social Research*. Princeton, NJ: Princeton University Press.

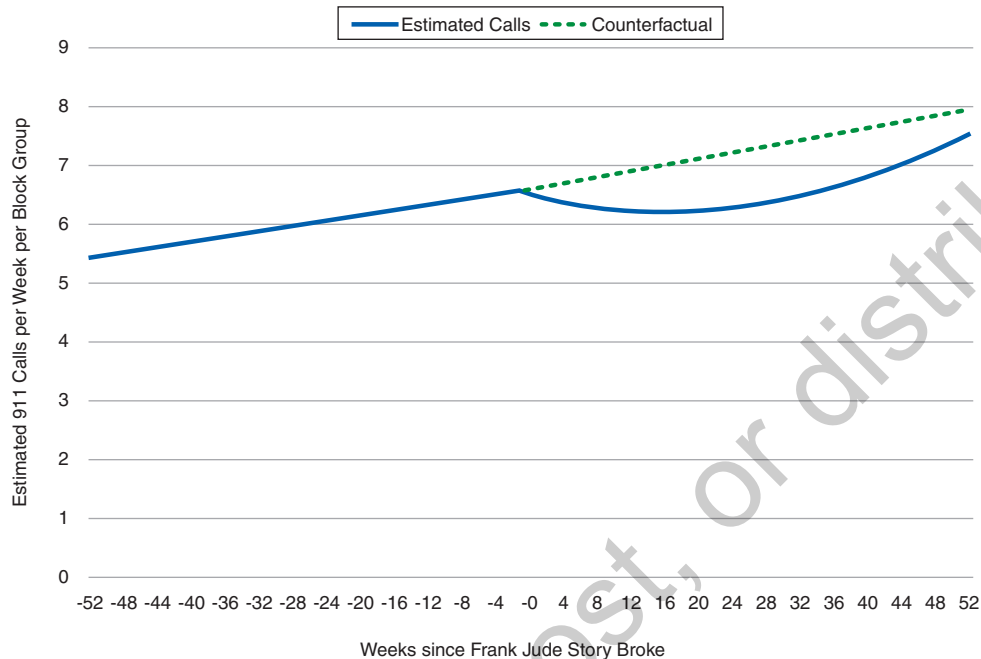
### Scientific Relevance

Every research question should be grounded in the social science literature. Whether you formulate a research question because you have been stimulated by an academic article or because you want to investigate a current social problem, you should first turn to the social science literature to find out what has already been learned about this question. You can be sure that some prior study is relevant to any research question you can think of.

The study of police violence and citizen crime reporting was grounded in legal cynicism theory, which expects a lack of cooperation with police in underrepresented communities due to the belief that police lack interest in assisting residents (Baumer 2002; Kirk and Papachristos 2011). In the Milwaukee study, the theoretically based prediction was that publicity about Frank Jude's beating would increase legal cynicism in the underrepresented community and so result in fewer 911 calls for police assistance. This is exactly what the researchers found: 911 calls to the

police dropped immediately after the story was publicized (see Figure 2.3). The research now can be used by other social scientists seeking to develop and test legal cynicism theory.

**FIGURE 2.3** ■ Estimated Number of Weekly 911 Calls Reporting Crime Before and After the Frank Jude Story



Source: Desmond, Matthew, Andrew V. Papachristos, and David S. Kirk. 2016. "Police Violence and Citizen Crime Reporting in the Black Community." *American Sociological Review* 81(5):857–76.

What if there is already a lot of convincing research published about your proposed research question? Can you focus the question on a new population or setting? Is early intervention with social services more effective in reducing violence among juveniles than among adults? Do men like using Facebook as much as women do? You get the idea.

## SOCIAL THEORIES

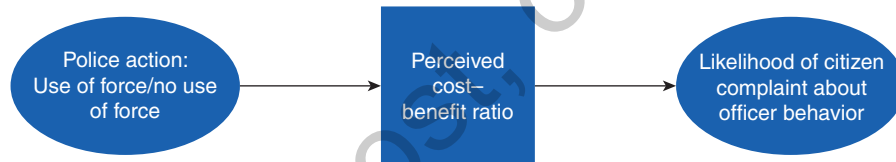
Police behavior does not exist in a vacuum, set apart from the rest of the social world. We can understand behaviors and orientations better if we consider how they reflect broader social patterns. Does the behavior of some police officers reflect their conceptions of masculinity? Do communities vary in their level of social cohesion and physical safety? Our answers to general questions such as these will help shape the research questions we ask and the methods we use.

Although everyone has general notions about “how things work,” “what people are like,” and so on, social scientists draw on more formal sets of general ideas—social theories—to guide their research (Collins 1994). A **theory** is a logically interrelated set of propositions that helps us make sense of many interrelated phenomena and predict behavior or attitudes that are likely to occur when certain conditions are met. Theory helps social scientists decide which questions are important to ask about the social world and which are just trivial pursuits. Theory focuses a spotlight on the particular features of the social world where we should look to get answers for

these questions, how these features are related to each other, and what features can be ignored. Building and evaluating theory is therefore one of the most important objectives of social science.

Anthony Braga and his collaborators (2020) at Northeastern University designed their study of the effect of body-worn cameras (BWCs) on police–citizen encounters to test predictions from deterrence theory. Deterrence theory is itself based on a broader perspective that is termed **rational choice theory**. Rational choice theory assumes that people’s behavior is shaped by practical cost–benefit calculations (Coleman 1990:14). *Deterrence theory* applies rational choice theory to crime and punishment (Lempert and Sanders 1986:86–87), proposing that offenders are less likely to commit crimes if they believe the costs of illegal acts will exceed their benefits (Braga et al. 2020). Crime “doesn’t pay” (as much) when people are aware of the costs of punishment (see Figure 2.4). Braga et al.’s (2020) prediction from deterrence theory about police behavior was that police officers should be less likely to engage in illegal behavior if they know their actions are being recorded and therefore are more likely to result in the punishment of the officer. A different theory, public self-awareness theory also led Braga et al. (2020) to predict more compliance with social norms by police wearing a camera. The theory expects that when people are being observed (a consequence of a BWC), they are reminded of social norms and are more likely to adjust their behavior to comply with those norms.

**FIGURE 2.4** ■ Rational Choice Theory Prediction



Do these concepts interest you? Do these propositions strike you as reasonable ones? If so, you might join a long list of researchers who have attempted to test, extend, and modify various aspects of rational choice theory.

Some sociologists attempt to understand the social world by investigating the meaning people attach to their interactions. These researchers focus on the symbolic nature of social interaction—how social interaction conveys meaning and promotes socialization. Herbert Blumer developed these ideas into **symbolic interaction theory** (Turner, Beeghly, and Powers 1995:460).

*Labeling theory* uses a symbolic interactionist approach to explain deviance as an “offender’s” reaction to the application of rules and sanctions (Becker 1963:9; Scull 1988:678). Can you see how researchers like Braga et al. (2020) could use labeling theory to make predictions about the effects of body-worn cameras? It would involve a somewhat different rationale than self-awareness theory for explaining the effect of BWCs. Police officers might want to avoid being labeled as rule violators after being “caught on camera”; so too could those who might be subject to arrest. Projecting camera images of deviant behavior in the courtroom could also increase the likelihood of labeling officers and those arrested as deviant. In an earlier study of the police response to domestic violence complaints, Sherman and Berk (1984) recognized that a labeling process might influence offenders’ responses to arrest. Once the offender is labeled as a deviant by undergoing arrest, other people treat the offender as deviant, and they are then more likely to act in a way that is consistent with the label *deviant*. Ironically, the act of punishment stimulates more of the very behavior it was intended to eliminate.



Do you find yourself thinking of some interesting research foci when you read about this labeling theory of deviance? If so, consider developing your knowledge of symbolic interaction theory and using it as a guide in your research.

**Conflict theory** focuses on basic conflicts between different social groups in society and how groups attempt to exercise domination to their own benefit (Collins 1994:47). The theory has its origins in Karl Marx and Friedrich Engels's (1961:13–16) focus on social classes as the key groupings in society and their belief that conflict between social classes was the “engine” of social change.

Although different versions of conflict theory emphasize different bases for conflict, they focus attention on the conflicting interests of groups rather than on individuals' concerns with maximizing their self-interest. As applied to crime, conflict theory suggests that laws and the criminal justice system are tools of the upper classes to maintain their dominance over the lower classes.

Tammy Rinehart Kochel (2019) turned to conflict theory to explain the impact of “Ferguson” (the fatal police shooting of Michael Brown) on residents' views of the police. Conflict theory predicts that people in a disadvantaged group within a political system will tend to be distrustful of representatives of that system—such as police (Kochel 2019). Findings of Kochel's before-and-after survey of the residents in the county in which Ferguson is located were consistent with this prediction: Black residents' trust in police declined after the shooting, while white residents' level of trust in police did not change.

Do these concepts strike a responsive chord with you? Can you think of instances in which propositions of conflict theory might help explain social change?

French social theorist Émile Durkheim used a very different theory, **functionalism**, to explain forms of deviance from societal norms. Writing during the period of rapid social change in Europe at the dawn of the 20th century, Durkheim (1893/2014) was concerned with the strength of social bonds in society. He posited that traditional social bonds based on similarity between people were being replaced by social bonds based on interdependence between people performing different social roles. For example, urban dwellers needed farmers to grow their food, truckers to bring the crops to market, merchants to arrange the sale of the crops, butchers to prepare meat, cobblers to make shoes, and so forth. Durkheim (1893/2014) termed social bonds based in this way on interdependence as *organic solidarity* (bringing to mind the interdependence of different organs in the body). Crime is explained by functionalists as occurring because it is functional for society to delimit the boundaries around acceptable behavior.

As a social researcher, you may work with one of these theories, seeking to extend it, challenge it, or specify it. You may test alternative implications of the different theories against each other. If you're feeling ambitious, you may even seek to combine some aspects of the different perspectives. Maybe you'll come up with a different theoretical perspective altogether. Or you may find you lose sight of the larger picture in the midst of a research project; after all, it is easier to focus on accumulating particular findings rather than considering how those findings fit into a more general understanding of the social world. But you'll find, in any area of research, developing an understanding of relevant theories will help you ask important questions, consider reasonable alternatives, and choose appropriate research procedures.

## Scientific Paradigms

**Scientific paradigms** are sets of beliefs that guide scientific work in an area, including unquestioned presuppositions, accepted theories, and exemplary research findings. In his famous book on the history of science, *The Structure of Scientific Revolutions*, Thomas S. Kuhn (1970) argued

that most of the time, one scientific paradigm is accepted as the prevailing wisdom in a field, and scientists test ideas that make sense within that paradigm. They are conducting what Kuhn called **normal science**. Only after a large body of contrary evidence accumulates might there be a rapid shift to a new paradigm (Hammersley 2008:46).

Some people refer to conflict theory, functionalist theory, and symbolic interaction theory as alternative paradigms, although this stretches the meaning of *paradigm* a bit. In any case, many social scientists draw on more than one of these theories (and others) in their research and so reject the notion that they are truly incommensurable paradigms. We also should be sensitive to the insights that can be provided by examining social phenomena from different perspectives.

## SEARCHING FOR PRIOR RESEARCH

How do you find prior research and theorizing on questions of interest? You may already know some of the relevant material from prior coursework or your independent reading, but that won't be enough. When you begin to focus on a research question, you need to search for academic articles focused on that question and its different components, with an emphasis on those based on research projects using methods like those you plan to use. If there have been no prior studies of the same exact research question on which you want to focus, you should seek articles from investigations of very similar research questions. Once you have located articles from prior research like the research you want to conduct, you may expand your search to include investigations about related topics or studies that used similar methods.

Searching the web can also identify research projects, unpublished reports, and other resources that may be useful as you explore your research question from different angles and seek related resources. This process requires a different approach than searching the academic literature, so I will treat it in its own section.

### Searching the Literature

Conducting a thorough search of the research literature and then reviewing critically what you have found lays an essential foundation for any research project. Fortunately, much of this information can be identified online, without leaving your desktop or laptop, and an increasing number of published journal articles can be downloaded directly onto your own computer (depending on your own access privileges). But just because there's a lot available online doesn't mean you need to find it *all*. Keep in mind that your goal is to find relevant reports of prior research investigations.

The type of reports you should focus on are those that have been screened for quality through critique by other social scientists before publication. Scholarly journals, or *refereed journals* that publish *peer-reviewed articles*, manage this review process. Most often, editors of refereed journals send articles that authors submit to three or more other social scientists for anonymous review. Based on the reviewers' comments, the journal editor then decides whether to accept or reject the article or to invite the author to "revise and resubmit." This process results in the rejection of most articles (top journals such as the *American Sociological Review* or the *American Journal of Sociology* may reject about 90% of the articles submitted), and those that are ultimately accepted for publication typically have to be revised and resubmitted first. This helps ensure a much higher-quality standard, although journals vary in the rigor of their review standards, and, of course, different reviewers may be impressed by different types of articles; you thus always have to make your own judgment about article quality.

Newspaper and magazine articles may raise important issues or summarize social science research investigations, but they are not an acceptable source for understanding the research literature. The web offers much useful material, including research reports from government and other sources, sites that describe social programs, and even indexes of the published research literature. You may find copies of rating scales, reports from research in progress, papers that have been presented at professional conferences, and online discussions of related topics. Web search engines will also find academic journal articles you can access directly online, although usually for a fee. Most of the published research literature will be available to you online only if you go through the website of your college or university library. The library pays a fee to companies that provide online journals so you can retrieve this information without paying anything extra yourself. Of course, no library can afford to pay for every journal, so if you can't find a particular issue of a particular journal you need online, you will have to order the article you need through interlibrary loan or, if the hard copy of the journal is available, walk over to your library to read it.

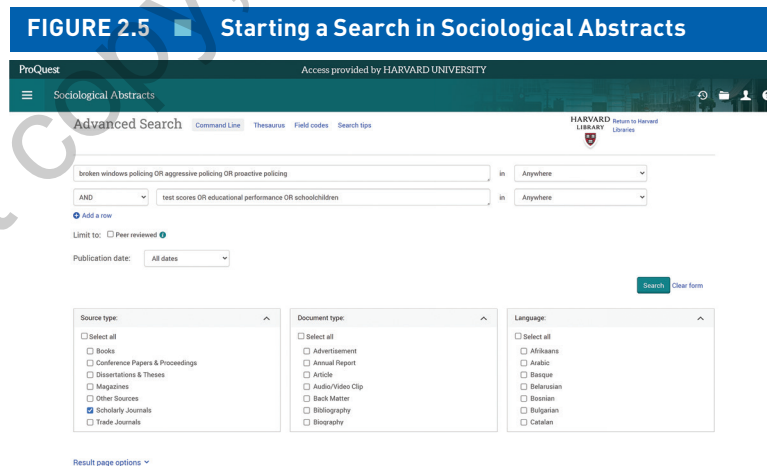
As with any part of the research process, your method for searching the literature will affect the quality of your results. Your search method should include the following steps:

1. *Specify your research question.* Your research question should be neither so broad that hundreds of articles are judged relevant nor so narrow you miss important literature. “Is informal social control effective?” is probably too broad. “Does informal social control reduce rates of burglary in my town?” is probably too narrow. “Is informal social control more effective in reducing crime rates than policing?” provides about the right level of specificity.
2. *Identify appropriate bibliographic databases to search.* Sociological Abstracts or SocINDEX may meet many of your needs, but if you are studying a question about social factors in illness, you should also search in MEDLINE, the database for searching the medical literature. If your focus is about psychological issues, you'll also want to include a search in the online Psychological Abstracts database, PsycINFO or the version that also contains the full text of articles, PsycARTICLES. Search Criminal Justice Abstracts if your topic is in the area of criminology or criminal justice, or EconLit, if your topic might be addressed in the economic literature. A multidisciplinary bibliographic database like Academic OneFile or Academic Search Complete may be a good choice for some research questions. It will save you a lot of time if you ask a librarian to teach you the best techniques for retrieving the most relevant articles to answer your questions.

To find articles that refer to a previous publication, such as Braga et al.'s (2018) early report on the effect of body-worn cameras, the Social Science Citation Index (SSCI) will be helpful. SSCI is an extremely useful tool for tracing the cumulative research in an area across the social sciences. SSCI has a unique “citation searching” feature that allows you to look up articles or books, see who else has cited them in their own work, and find out which articles and books have had the biggest impact in a field.

3. *Create a tentative list of search terms.* List the parts and subparts of your research question and any related issues you think are important: “informal social control,” “police use of force,” “body-worn cameras,” and perhaps “trust in the police.” It might help to start with one key article that has focused on your research question, identify the concepts in it, and search those concepts. You can then expand the search with more concepts in the articles you locate (Booth, Sutton, and Papaioannou 2016:115).

4. *Narrow your search.* The sheer number of references you find can be a problem. For example, searching for “social capital” (in quotation marks) in April 2022 resulted in 9,589 citations in SocINDEX with full text. Depending on the database you are working with and the purposes of your search, you may want to limit your search to English-language publications, to journal articles rather than conference papers or dissertations (both of which are more difficult to acquire), and to materials published in recent years. If your search yields too many citations, try specifying the search terms more precisely (e.g., “neighborhood social capital”). If you have not found much literature, try using more general or multiple terms (e.g., “social relations” or “social ties”). You may want to include the names of authors of major relevant studies or of the most important relevant journals in addition to the subject terms. Whatever terms you search first, don’t consider your search complete until you have tried several different approaches and have seen how many articles you find. A search for “police shootings” in SocINDEX on April 9, 2022, yielded 220 hits; by adding “effects or impact or consequences or influence or outcomes” as required search terms (on a second search line, without quotation marks) and limiting the search to peer-reviewed articles published since 2010 (check search options for the database), the number of hits dropped to 62. So you may need to spend some time trying different combinations of search terms and search limiters. Also, consider trying your search in a different database or in several databases at once. When I redid my last SocINDEX search (locating 62 articles) by adding Criminal Justice Abstracts with full text as a second bibliographic database, it located 153 articles.
5. *Use Boolean search logic.* It’s often a good idea to narrow your search by requiring that abstracts contain combinations of words or phrases that include more of the specific details of your research question. Using the Boolean connector *AND* allows you to do this, whereas using the connector *OR* allows you to find abstracts containing different words that mean the same thing (see Figure 2.5).



6. *Use appropriate subject descriptors.* Once you have found an article you consider appropriate, check the “descriptors” or “subject terms” field in the citation. You can then redo your search after requiring that the articles be classified with some or all of these descriptor terms. It can be helpful to add “key terms” that have already been

attached to related articles by professional indexers (Gough et al. 2017:108–110). Such “controlled vocabularies” appear as “subject terms” in SocINDEX, as “thesaurus” terms in Sociological Abstracts, and as MeSH (medical subject headings) in MEDLINE. A librarian can help you to refine your search strategy in this way.

7. *Check the results.* Read the titles and abstracts you have found and identify the articles that appear to be most relevant. If possible, click on these article titles and generate a list of their references. See if you find more articles that are relevant to your research question but that you have missed so far. You will be surprised (I always am) at how many important articles your initial online search missed.
8. *Locate the articles.* Whatever database you use, the next step after identifying your references is to obtain the articles themselves. You will probably find the full text of many articles available online, but this will be determined by what journals your library subscribes to and the period for which it pays for online access. The most recent issues of some journals may not be available online. Keep in mind, your library will not have anywhere near all the journals (and books) that you run across in your literature search, so you will have to add another step to your search: checking the “holdings” information.

If an article that appears to be important for your topic isn’t available from your own library or online, you may be able to request a copy online through your library site or by asking a member of the library staff. You can also check <http://worldcat.org> to see what other libraries have the journal.

9. *Take notes on each article you read, organizing your notes into standard sections: theory, methods, findings, conclusions.* In any case, write your review of the literature so it contributes to your study in some concrete way; don’t feel compelled to discuss an article just because you have read it. Be judicious. You are conducting only one study of one issue, and it will only obscure the value of your study if you try to relate it to every tangential point in related research.

Don’t think of searching the literature as a one-time-only venture—something that you leave behind as you move on to your *real* research. You may encounter new questions or unanticipated problems as you conduct your research or as you burrow deeper into the literature. Searching the literature again to determine what others have found in response to these questions or what steps they have taken to resolve these problems can yield substantial improvements in your own research. There is so much literature on so many topics that it often is not possible to figure out in advance every subject for which you should search the literature or what type of search will be most beneficial.

Another reason to make searching the literature an ongoing project is that the literature is always growing. During the course of one research study, whether it takes only one semester or several years, new findings will be published and relevant questions will be debated. Staying attuned to the literature and checking it at least when you are writing up your findings may save your study from being outdated as soon as it is finished.

### Searching the Web

The World Wide Web provides access to vast amounts of information of many different sorts (Ó Dochartaigh 2002). There are more than 1.8 billion websites, although only about one-quarter



(200,000,000) of these are active (<http://www.internetlivestats.com/total-number-of-websites/>). You can search the holdings of other libraries and download the complete text of government reports, some conference papers, and newspaper articles. You can find policies of local governments, descriptions of individual social scientists and particular research projects, and postings of advocacy groups. It's also hard to avoid finding a lot of information in which you have no interest, such as commercial advertisements, third-grade homework assignments, or advertisements galore.

So *caveat emptor* (buyer beware) is the watchword when you search the web. After all, it is a medium in which anyone with basic skills can post almost anything. On the other hand, the web provides access to resources of vital importance for many research projects; the trick is to use it well and wisely. Google has become the leading search engine. Its coverage is relatively comprehensive, and it does a good job of ranking search results by their relevancy (based on the terms in your search request). Google also allows you to focus your search just on images, discussions, or directories. There are several alternative search engines to Google—each has some advantages and disadvantages (Gil 2017), but at this time, most search needs can be met with Google.

*Google Scholar* is of special interest since it provides a publicly accessible tool for searching the scholarly literature across disciplines, but it also includes technical reports, theses, books, and other types of documents. Google Scholar found 26,700 documents in a search for “racial disparities in police shootings” [not in quotes] (on April 9, 2022), and since it lists articles in order of use of the search terms, frequency of citation, and other reasonable factors, the first several pages of citations provide a good way to identify potentially important omissions from your literature searches in bibliographic databases available at your library. However, in most cases, when you attempt to open the PDF of most of the full articles, you will be asked to pay for access. So you will still need to go through your library to obtain the full text of the articles that interest you (if your library subscribes to the source journals).

A *Google Scholar* search also produces a list of suggestions for related searches that can help you refine or expand your search. For example, the list of “related searches” at the bottom of the first page of my “racial disparities in police shootings” (without quotation marks) search includes “police shootings racial residential segregation.” Clicking this link produced a list of 3,590 results.

On the web, less is usually more. As a general strategy, limit your inspection of websites to the first few pages that turn up in your list (they're ranked by relevance). See what those first pages contain, and then try to narrow your search by including some additional terms. If you limit your search to an exact phrase by putting the words in quotation marks, you can reduce the number of results dramatically and they are all likely to be related to exactly what you are looking for. Searching for “racial disparities in police shootings” [in quotes] produced only 81 results (compared to the 26,700 without quotes). But of course, you'll miss many related articles that way. You can limit the search more by limiting it to sites with the desired phrase in the title. For instance, the search *allintitle: racial disparities in police shootings* resulted in a dramatically smaller yield of results (6 in this case). You can also narrow your search by date (options in the left-hand margin). You'll find other ways of limiting your search in the “Advanced search” option in the *Google Scholar* menu.

It's all rather overwhelming, so you'll have to spend some time refining and trying out different sets of search terms. Before you begin, be sure to clarify the goals of your search. Will you check on the coverage of your literature searching? Review related government programs? Find reports and statistics about the research question? Examine commentary about it?

## REVIEWING PRIOR RESEARCH

Once you have identified relevant information from prior research, it's time to review it. Focus your review on the articles you have found in peer-reviewed academic journals, so you know you are reading work by social scientists who subjected their reports to a quality review by other social scientists. It's not possible to overemphasize the importance of this step as you begin to investigate a social research question, so I will present the process in detail.

Consider some of the issues you can address if you use a literature review to refine your research focus:

- Has a consensus already emerged in response to this research question? If not, what are the differences in findings, and what remains to be investigated?
- What has not been acknowledged in prior publications? Have methods been fully described?
- What theories have been applied in this research, and which seem most consistent with the evidence?
- Which methods have been used in prior investigations? Have any difficulties emerged in their application?

If you keep issues like these in mind as you review the literature, you will create a solid foundation for your own research.

Although it's most important when you're starting out, reviewing the literature is also important at later stages of the research process. Throughout a research project, you will uncover new issues and encounter unexpected problems; at each of these times, you should search the literature to locate prior research on these issues and to learn how others responded to similar problems. Published research that you ignored when you were seeking other research on police shootings might become very relevant when you must decide which questions to ask people about their attitudes toward police and other authorities.

Your literature review will suggest specific research questions for further investigation and research methods with which to study those questions. Braga et al. (2018) learned from their literature review that prior research indicated—with just a few exceptions—that BWCs (body-worn cameras) reduce citizen complaints against officers. However, results of prior research on the impact of BWCs on officer use of force during police–citizen encounters had been inconsistent: some found a reduction in officer use of force and others found no change. One careful evaluation suggested the inconsistency might be due to differences in the extent to which officers complied with their department's BWC activation policy. In sites where officers notified citizens of BWC at the start of an encounter, use of force declined; in sites where they didn't make such an announcement, use of force increased.

Their literature review also found that prior research had not taken account of possible “spillover effects”: the tendency of officers not wearing body cameras to change their behavior when working with other officers who were using BWCs. There was thus potential value in conducting new research that took account of both officer compliance and tested for spillover effects. In this way, reviewing the literature identifies unanswered questions and contradictory evidence.

Effective review of the prior research is thus an essential step in building the foundation for new research. You must assess carefully the quality of each research study, consider the implications of each article for your own plans, and expand your thinking about your research question

to account for new perspectives and alternative arguments. Through reviewing the literature and using it to extend and sharpen your own ideas and methods, you become a part of the social science community. Instead of being just one individual studying an issue that interests you, you are building on an ever-growing body of knowledge that is being constructed by the community of scholars.

Most of the research articles you find will include a short literature review on the specific focus of the research. Sometimes you'll find that someone else has already searched the literature on your research question and discussed what they found in a special review article or book chapter. All of these reviews can help, but they are no substitute for searching the literature yourself, selecting the articles and other sources that are most pertinent to your research question, and then reading what you have found. You are the only one who can decide what is relevant for your research question and the research circumstances you will be facing—the setting you will study, the timing of your study, the new issues you want to include in your study, and your specific methods. And you can't depend on any published research review for information on the most recent works. New research results about many questions appear continually in scholarly journals and books, in research reports from government agencies and other organizations, and on websites all over the world; you'll need to check for new research like this yourself.

The published scholarly journal literature can be identified in databases such as Sociological Abstracts, SocINDEX, PsycINFO, and MEDLINE. Because these literature databases follow a standard format and use a careful process to decide what literature to include, they are the sources on which you should focus. This section concentrates on the procedures you should use for reviewing the articles you find in a search of the scholarly literature, but these procedures can also be applied to reviews of research monographs—books that provide more information from a research project than can be contained in a journal article.

Reviewing the literature is really a two-stage process. In the first stage, you must assess each article separately. This assessment should follow a standard format such as that represented by the “Questions to Ask About a Research Article” in Appendix A. However, keep in mind that you can't adequately understand a research study if you just treat it as a series of discrete steps involving a marriage of convenience among separate techniques. Any research project is an integrated whole, so you must be concerned with how each component of the research design influenced the others—for example, how the measurement approach might have affected the causal validity of the researcher's conclusions and how the sampling strategy might have altered the quality of measures.

The second stage of the review process is to assess the implications of the entire set of articles (and other materials) for the different aspects of your research question and then to write an integrated narrative review that highlights these implications. Although you can find literature reviews that consist simply of assessments of one published article after another—that never get beyond the first stage in the review process—your understanding of the literature and the quality of your own work will be much improved if you develop an integrated review.

Reviewing the literature can itself become the research project! A “systematic review” begins with a very carefully designed search strategy and criteria for including research articles and then summarizes each included study with a detailed review protocol. A systematic review is published as a separate article rather than as part of the background in an article presenting the results of new research. Another way to evaluate systematically the findings of prior research is called “meta-analysis.” In a meta-analysis, a researcher systematically identifies all prior quantitative research articles focused on a specific research question and then analyzes statistically

the combined findings from those prior studies. I will review the method of meta-analysis in Chapter 11.

In the next section, I show how you might answer many of the questions in Appendix A as I review a research article about the effects of aggressive policing. I will then show how the review of a single article can be used within an integrated review of the body of prior research relevant to a research question. I will conclude the material on literature reviews with a section on conducting a systematic review.

### Single-Article Reviews: Aggressive Policing and Educational Performance of Minority Youth

Joscha Legewie at Harvard University and Jeffrey Fagan at Columbia Law School teamed up to study the effect of aggressive policing on the educational performance of New York City public school students in kindergarten to eighth grade. In this section, we will examine the article that resulted from that replication, which was published in the *American Sociological Review* (Legewie and Fagan 2019). The numbers in square brackets refer to the article review questions in Appendix A. Be sure to read each article review question in Appendix A when you read my answer to it.

*The research question.* Legewie and Fagan (2019:221) state their primary research question as the following: “What are the consequences of the increasing presence of police in minority communities for minority youths’ educational performance?” They focus specifically on the effect of aggressive, order-maintenance policing (also known as “broken-windows policing”) on African American boys and in comparison to Hispanic boys and girls in both groups. They also propose to examine the mechanisms by which any effects occur. [1]. The purpose of the study was explanatory: Its goal was to explain variation in educational performance[2]. Theoretical models of neighborhood effects and policing guide the study, pointing to different mechanisms that could shape the effects of policing on educational performance. Their theorizing does not make clear connections to such potentially relevant theories as deterrence theory, labeling theory, or conflict theory. The research is applied and they approach it with a positivist philosophy that focuses on cause and effect connections. The research is not guided by their values, although their conclusions suggest they favor policies that would improve rather than diminish educational performance [3].

Legewie and Fagan review a large body of prior research literature, giving particular attention to research that has tested different ways in which policing practices could affect students’ educational performance [4]. Figure 2.5 (preceding) shows what Legewie and Fagan might have entered on their computer if they had searched Sociological Abstracts to find research related to aggressive policing and educational performance.

The research uses only administrative records, so there is no direct contact with human subjects and no discussion of ethical guidelines [6].

*The research design.* The explanatory focus of the research identifies it as deductive [5]. The primary study hypothesis is that aggressive policing strategies and tactics lower educational performance and perpetuate racial inequalities in educational outcomes, although it is not labeled explicitly as a hypothesis. Based on extensive prior research, three other hypotheses are proposed as mechanisms that might explain the effect of aggressive policing on educational performance: (a) Aggressive policing reduces crime rates, which in turn may improve educational performance; (b) aggressive policing may reduce trust in institutions and school attendance, which may negatively influence educational performance; (c) aggressive policing may trigger adverse health effects, such as stress and fear, which reduce educational performance [7].

The independent variable in the primary hypothesis is aggressive policing and the dependent variable is educational performance. The secondary hypotheses are really each a pair of hypotheses; in the first of each pair, aggressive policing is initially the independent variable and crime rate, trust, and poor health are the dependent variables, while in the second pair, these three “dependent” variables become independent variables that predict change in educational outcomes—the dependent variable. Hypotheses are also proposed involving differences in effects in relation to student age, race, and gender.

The major concepts in the study, aggressive policing and educational performance, were defined clearly [9] and then measured with straightforward indicators—days of exposure of a school neighborhood to Operation Impact (New York City police department’s aggressive policing program) as the measure of aggressive policing and standardized test scores (English and math) as the measure of educational performance. Previously collected data are used to measure neighborhood crime level, positive school attitudes and trust, and school attendance. However, there are no indicators of poor health, such as stress levels or fear, in spite of an extensive section of the literature review devoted to these issues [9]. The data were obtained from police department and school administrative records, including results of a student survey. These data sources are described in detail, but there is no indication of efforts to establish their reliability or validity [10].

The sample consisted of all 285,439 African American and Hispanic students attending schools in zones designated as Operation Impact zones at some time between 2003 and 2012. It was thus really the entire population of these students rather than a sample from the population. Too few white and Asian students lived in these areas to be able to analyze them separately, so these students are excluded from the analysis. The analysis was also limited to students between 9 and 15 years old, for the same reason. A small fraction of students who did not participate in the yearly state test of educational performance or for whom data were missing on other variables were also excluded from the analysis [11]. The authors report that 2.6% of the cases had data missing on one or more variables [12].

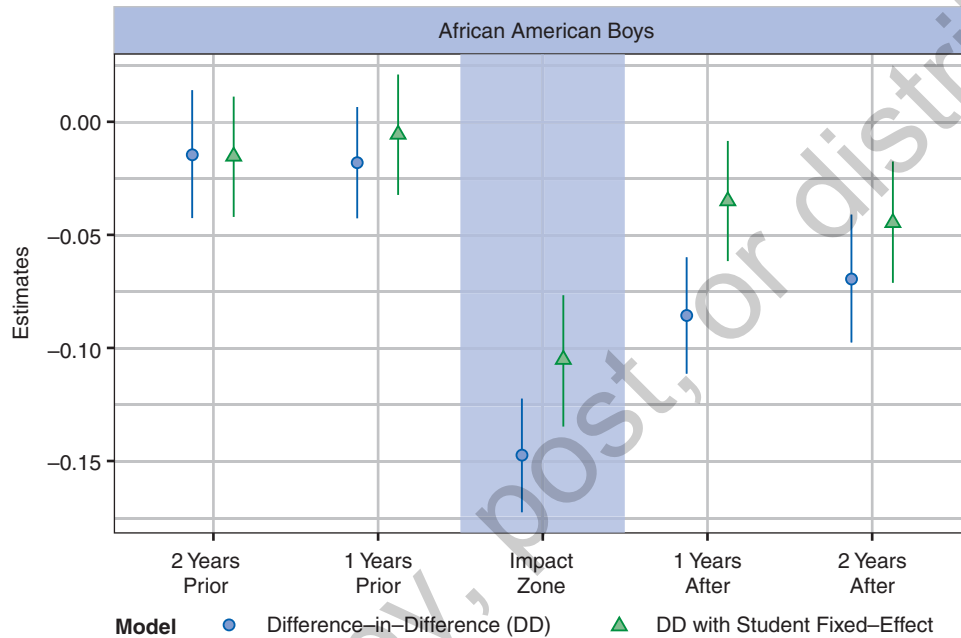
Individual students were the units of analysis, although most of the predictors are based on school- or neighborhood-level data. There is some risk of a type of ecological fallacy since there is no individual-level measure of exposure to Operation Impact—but this threat is not discussed [13]. The study used a longitudinal panel design since students were followed over time, before and after the period when police used Operation Impact [14]. Use of a type of quasi-experimental design (before–after) strengthened the test of the authors’ causal hypotheses. In the article’s limitations section, the authors consider whether the findings would hold up in other cities, suburban or rural areas, and across the world. They recognize that more research would be needed to determine such external generalizability [15].

*The research findings and conclusion.* Legewie and Fagan (2019) analyzed only quantitative data, so they did not use mixed methods [18]. The project relied on secondary data from the New York City Department of Education (NYCDOE) and the New York Police Department (NYPD). The authors do not discuss the quality of these data, apparently assuming that such administrative data collected in these large, professionally run organizations is accurate. Use of this “big data” allows sophisticated analyses of changes over time. No information is provided on protection of anonymity of individual records, but it is likely that such steps were taken [19]. The design was not historical-comparative and did not involve a content analysis [20]. The authors highlighted the importance of social context throughout the article and gave careful attention to subjective meanings by using survey data that indicated students’ level of trust toward schools and teachers [21]



The central finding is that the primary hypothesis is supported: launching Operation Impact (aggressive policing) in an area was followed by a decline in test scores of African American boys in public schools in that area; an apparent effect that diminished in size over the following two years (see Figure 2.6). This is certainly an important finding. Legewie and Fagan then present tests of their secondary hypotheses and find that the effect of aggressive policing was not due to an increase in the crime rate in these areas; however, a decline in school attendance for African American boys during the Operation Impact period seemed to be partly responsible for the decline in test scores.

**FIGURE 2.6** ■ Effect of Aggressive Policing (Operation Impact) on English Test Scores Before, During, and After Operation Impact



Source: Legewie, Joscha, and Jeffrey Fagan. 2019. "Aggressive Policing and the Educational Performance of Minority Youth." *American Sociological Review* 84(2):220–47.

The statistical analyses required to distinguish effects of changes in the crime rate from the effect of Operation Impact are complicated but presented clearly [22]. The authors represent the findings well in the conclusions and carefully consider alternative interpretations [23]. Overall, the study is a major advance over prior research [24] and suggests many additional questions for further research [25], such as: Would implementing a community policing strategy have the same type of effects on school performance as the use of aggressive policing? Do youth with stronger ties to family and/or community groups suffer less in their academic performance after exposure to aggressive policing?

### Integrated Literature Reviews: When Does Arrest Matter?

The goal of the second stage of the literature review process is to integrate the results of your separate article reviews and develop an overall assessment of the implications of prior research. The integrated literature review should accomplish three goals: (1) summarize prior research,

(2) critique prior research, and (3) present pertinent conclusions (Hart 1998:186–187). I'll discuss each of these goals in turn.

1. *Summarize prior research.* Your summary of prior research must focus on the particular research questions you will address, but you may also need to provide some more general background. Carolyn Hoyle and Andrew Sanders (2000:14) begin their *British Journal of Criminology* research article about mandatory arrest policies in domestic violence cases with what they term a “provocative” question: What is the point of making it a crime for men to assault their female partners and ex-partners? The researchers then review the different theories and supporting research that have justified different police policies: the “victim choice” position, the “pro-arrest” position, and the “victim empowerment” position. Finally, Hoyle and Sanders review the research on the “controlling behaviors” of men that frames the specific research question on which they focus: how victims view the value of criminal justice interventions in their own cases (Hoyle and Sanders 2000:15).

After you have drafted your summary of the literature, ask yourself three questions about it:

- a. Have you been selective? If there have been more than a few prior investigations of your research question, you will need to narrow your focus to the most relevant and highest quality studies. Don't cite a large number of prior articles “just because they are there.”
  - b. Is the research up-to-date? Be sure to include the most recent research, not just the “classic” studies.
  - c. Have you used direct quotes sparingly? To focus your literature review, you need to express the key points from prior research in your own words. Use direct quotes only when they are essential for making an important point (Pyrzczak 2005:51–59).
2. *Critique prior research.* Evaluate the strengths and weaknesses of the prior research. In addition to all the points that you develop as you answer the article review questions in Appendix A, you should also select articles for review that reflect work published in peer-reviewed journals and written by credible authors who have been funded by reputable sources. Consider the following questions as you decide how much weight to give each article:
    - a. How was the report reviewed before its publication or release? Articles published in academic journals go through a rigorous review process, usually involving careful criticism and revision. Top refereed journals may accept only 10% of the submitted articles, so they can be very selective. Dissertations go through a lengthy process of criticism and revision by a few members of the dissertation writer's home institution. A report released directly by a research organization is likely to have had only a limited review, although some research organizations maintain a rigorous internal review process (see discussion of research organizations, later in this chapter). Papers presented at professional meetings may have had little prior review. Needless to say, more confidence can be placed in research results that have been subject to a more rigorous review.
    - b. What is the author's reputation? Reports by an author or team of authors who have published other work on the research question should have somewhat greater credibility at the outset.

- c. Who funded and sponsored the research? Major federal funding agencies and private foundations fund only research proposals that have been evaluated carefully and ranked highly by a panel of experts. These agencies also often monitor closely the progress of the research. This does not guarantee that every such project report is good, but it goes a long way toward ensuring some worthwhile products. Conversely, research that is funded by organizations that have a preference for a particular outcome should be given particularly close scrutiny (Locke, Silverman, and Spirduso 1998:37–44).
3. *Present pertinent conclusions.* Don't leave the reader guessing about the implications of the prior research for your own investigation. Present the conclusions you draw from the research you have reviewed. As you do so, follow several simple guidelines:
- a. Distinguish clearly your own opinion of prior research from the conclusions of the authors of the articles you have reviewed.
  - b. Make it clear when your own approach is based on the theoretical framework that you use and not on the results of prior research.
  - c. Acknowledge the potential limitations of any empirical research project (Pyrzczak 2005:53–56).
  - d. Explain how the unanswered questions raised by prior research or the limitations of methods used in prior research make it important for you to conduct your own investigation (Fink 2005:190–192).

A good example of how to conclude an integrated literature review is provided by an article based on a study in Milwaukee of the police response to domestic violence cases. For this article, Ray Paternoster and his colleagues (1997) sought to determine whether police officers' use of fair procedures when arresting assault suspects would lessen the rate of subsequent domestic violence. Paternoster et al. (1997) conclude that there has been a major gap in the prior literature: "Even at the end of some seven experiments and millions of dollars, then, there is a great deal of ambiguity surrounding the question of how arrest impacts future spouse assault" (p. 164). Specifically, the researchers note that each of the seven experiments focused on the effect of arrest itself but ignored the possibility that "particular kinds of police procedure might inhibit the recurrence of spouse assault" (p. 165).

So Paternoster and his colleagues (1997) ground their new analysis in additional literature on procedural justice and conclude that their new analysis will be "the first study to examine the effect of fairness judgments regarding a punitive criminal sanction (arrest) on serious criminal behavior (assaulting one's partner)" (p. 172).

### Systematic Literature Reviews: Second Responder Programs and Repeat Family Abuse Incidents

Any literature review should be systematic, but the term **systematic review** designates an approach to literature review that is much more structured than what is usually done in an integrated review of the literature. It is best thought of as a distinct method of research, for it often is itself the basis of a published article—rather than being used to provide the background in an article that reports the results of a new research study. Professional librarians often play a major role in systematic reviews and may coauthor the resulting article. There are also helpful tools available at <https://systematicreviewsjournal.biomedcentral.com/>. Published systematic reviews

are now archived on searchable websites, including <http://www.cochranelibrary.com/> (health care), [https:// https://www.campbellcollaboration.org/better-evidence](https://www.campbellcollaboration.org/better-evidence) (social interventions), and <http://epi.ioe.ac.uk/cms/> (multiple topic areas).

Developing a systematic review involves all of the activities I have just described for searching and reviewing the literature, but it proceeds with more explicit plans and reports at each stage of the process. Many systematic review efforts adhere to a set of rules known as the PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses): <http://www.prisma-statement.org/Default.aspx>.

Stephen Puntis and his colleagues (2018) in the United Kingdom conducted a systematic review of the effect of adding mental health interventions, called “street triage interventions,” to police responses to incidents with a suspected mental health component. The article reporting the results illustrates each stage of a systematic review.

1. *Define one or more specific research questions.* Puntis et al. (2018) specify three aims:
  - a. To identify and describe different *co*-response models of police mental health street triage
  - b. To identify demographic and clinical characteristics of service users
  - c. To evaluate the evidence for the effectiveness of *co*-response police mental health triage
2. *List the terms to be used in searching, the specific sources to be searched, and the inclusion criteria.* After a detailed description of the criteria for inclusion of studies, Patterson and Swan identified the following 9 bibliographic databases to search:
  - a. Ovid
  - b. MEDLINE
  - c. Embase
  - d. PsycINFO
  - e. EBSCO CINAHL
  - f. Scopus
  - g. Thompson Reuters Web of Science Core Collection
  - h. The Cochrane Library
  - i. ProQuest National Criminal Justice Reference Service Abstracts
 

They also searched the “grey literature”: meaning reports of research that have not been published in peer-reviewed articles.
  - j. ProQuest Dissertations & Theses
  - k. EThoS
  - l. OpenGrey
 

The following keywords were used to search the databases listed above:

    - a. street triag\*
    - b. policing or police and triag\*
    - c. “mental health” and triag\*
    - d. “liaison and diversion”
    - e. “specialized mental health response”
    - f. “co-responder”  
and a few others.

**TABLE 2.2** ■ Systematic Review Inclusion and Exclusion Criteria

Criteria	Sub-criteria	
	Inclusion	Exclusion
1. A co-response model of police mental health triage	<ul style="list-style-type: none"> <li>• Include both police officers and mental health workers in the response</li> <li>• Be a response to a police incident</li> </ul>	
2. Describe a triage model or model development OR implementation of a triage model OR epidemiological study OR evaluation of effectiveness	<ul style="list-style-type: none"> <li>• Any original published article</li> <li>• Grey literature, service evaluations</li> </ul>	<ul style="list-style-type: none"> <li>• Review articles, book chapters, editorials, or comments</li> </ul>
3. English language article		

[the \* means that the word it is attached to, like “shoot” could include different endings, such “er” or “ing”]

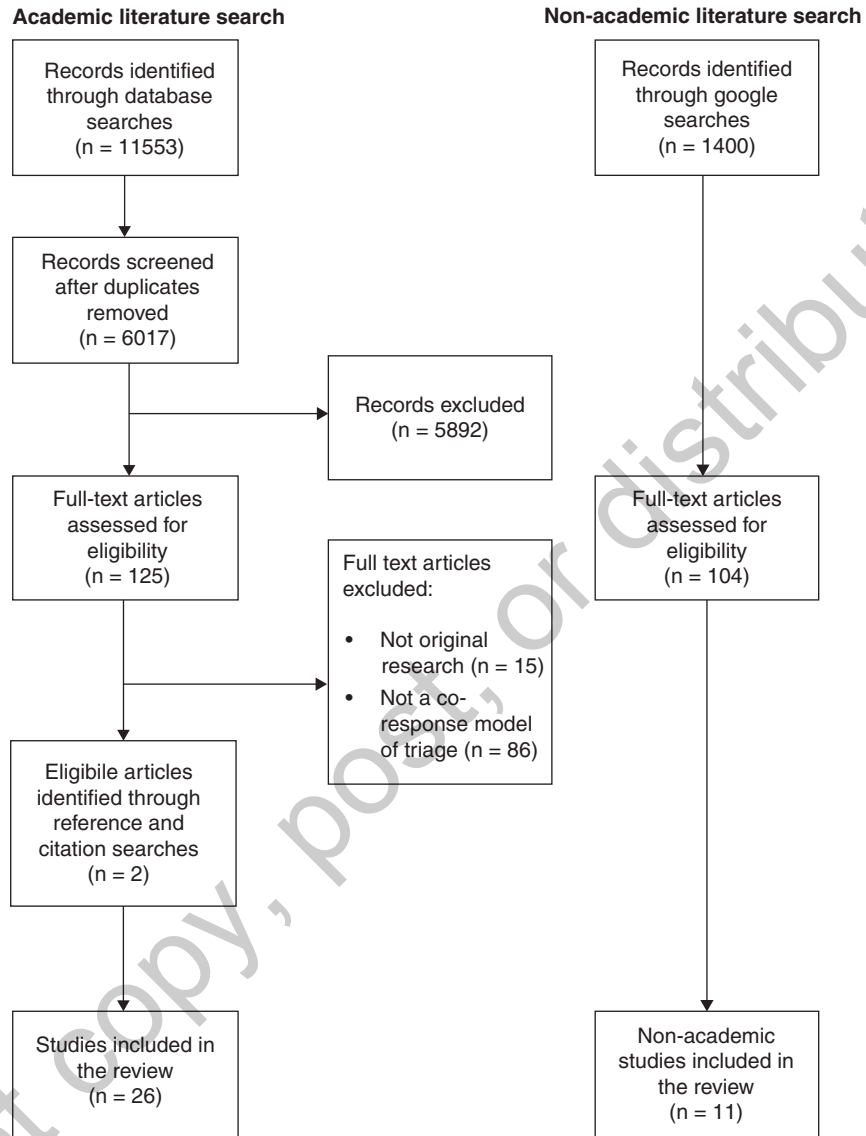
Puntis et al. (2018) established detailed inclusion criteria (see Table 2.2):

3. *Report the results of the search and the selection process*, often in the type of flow diagram recommended by PRISMA (see Figure 2.7). Puntis et al. initially identified 11,553 published articles using these search terms, but after removing duplicates and screening title and abstracts for relevance, they concluded that only 125 warranted full-text review. These decisions were made after review by two teams of reviewers operating independently and then comparing results before discussion to resolve discrepancies with a third reviewer. Of the articles reviewed in this way, just 26 met the detailed criteria for inclusion. Another 11 relevant studies were identified in the grey (“non-academic”) literature (see Figure 2.7).
4. *Code the characteristics of the selected studies*. A broad range of characteristics were coded, including age and race of the person involved in the incident, reason for the triage response, and reduction in police detentions (see Table 2.3 for some of the coded characteristics).
5. *Summarize the results in a narrative review*. Puntis et al. (2018) conclude “that co-response models of mental health police triage may reduce the use of police powers of detention” with persons with mental illness but highlight a lack of adequate quality in prior research. They identify unanswered questions, such as whether a police response is most appropriate in these cases.

Systematic reviews provide an excellent source of information about prior research in areas in which interventions have been tested and such reviews have been conducted. Be sure to read any that are available pertaining to your research question.



**FIGURE 2.7 ■ PRISMA Flow Diagram**



Source: Puntis, Stephen, Devon Perfect, Abirami Kirubarajan, Sorcha Bolton, Fay Davies, Aimee Hayes, Eli Harriss, and Andrew Molodynski. 2018. "A Systematic Review of Co-Responder Models of Police Mental Health 'street' Triage." *BMC Psychiatry* 18(1):1-11.

**TABLE 2.3 ■ Suggested Framework for Collecting and Reporting Co-response Triage Models [partial table]**

Topic	Variable to Report	Description of Variable and Reason for Reporting
Identify as co-response triage service	Name of service	Give the name of the service to enable grouping of models and their comparison.
	Identify as co-response	Include a sentence in the service description to signpost to readers and researchers that the service is a co-response model of police mental health triage.
Model characteristics	Model of co-response	Define the model of how the mental health professional assists the police officer during the incident. <i>Ride-along</i> models are those in which the police officer (PO) and mental health (MH) worker attend the incident together in a vehicle. <i>Ride-separate</i> models are when PO and MH worker arrive at the incident separately. <i>Telephone support</i> models are those in which the MH worker provides assistance via a telephone or radio. Services that provide a combination of these models should specify when each model is used.
	Method of referral to co-response team	Describe how crisis incidents are referred to the triage team (e.g., emergency response, direct from police officers, publicly available direct phone line), and from whom triage can take referrals (e.g., police officers, other emergency services, mental health services, the public, etc.).

Source: Puntis, Stephen, Devon Perfect, Abirami Kirubarajan, Sorcha Bolton, Fay Davies, Aimee Hayes, Eli Harriss, and Andrew Molodynski. 2018. "A Systematic Review of Co-Responder Models of Police Mental Health 'street' Triage." *BMC Psychiatry* 18(1):1–11.

## RESEARCH IN THE NEWS

### FATAL FORCE: A PUBLIC DATABASE OF POLICE SHOOTINGS

After the protests and nationwide soul-searching about police shootings of Black Americans that began with Michael Brown's 2014 death in Ferguson, Missouri, it is hard to believe these events were not often included in official records. Yet *The Washington Post* found that many police departments had not been reporting these events to the FBI for inclusion in the official record, so *The Washington Post* began a database of fatal police shootings in 2015. Compiling records from police, news, and social media reports, they have found about 1,000 fatal police shootings each year since 2015. Black Americans were killed in these shootings more than twice as often relative to their share of the population than white Americans and Hispanic persons were killed slightly less than twice as often. More than 95% were men, and more than half were between 20 and 40 years old.

#### For Further Thought?

1. Do you believe police department record-keeping practices should be improved to ensure an official record of these incidents? What opportunities and obstacles might be encountered in such an effort?
2. What type of research could improve our understanding of the differences in police shootings by race and ethnicity?

*News source:* Tate, Julie, Jennifer Jenkins, and Steven Rich. 2021. "Fatal Force." *The Washington Post*, August 30. <https://www.washingtonpost.com/graphics/investigations/police-shootings-database/>.

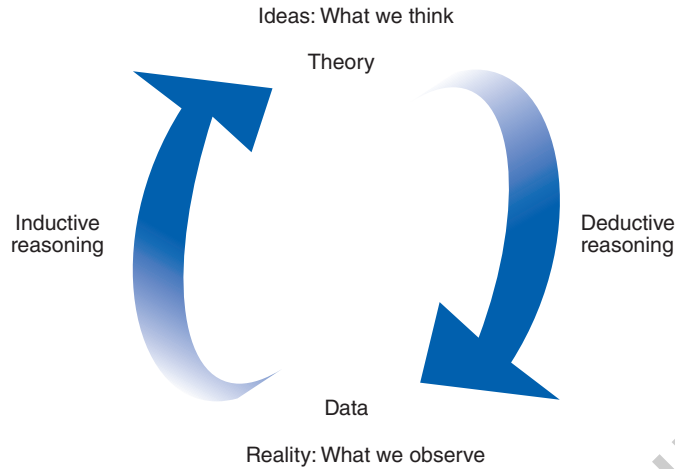
## SOCIAL RESEARCH STRATEGIES

With a research question formulated, a review of the pertinent literature taking shape, and a theoretical framework in mind, you are ready to consider the process of conducting your research.

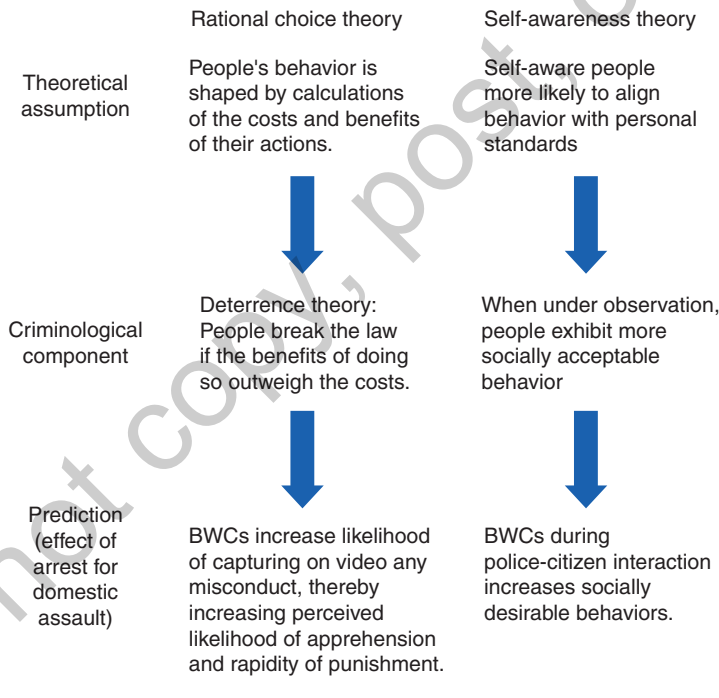
When you conduct social research, you are attempting to connect theory with empirical data—the evidence obtained from the social world. Researchers may make this connection by starting with a social theory and then testing some of its implications with data. This is the process of deductive research; it is most often the strategy used in quantitative methods. Alternatively, researchers may develop a connection between social theory and data by first collecting the data and then developing a theory that explains the patterns in the data (see Figure 2.8). This inductive research process is more often the strategy used in qualitative methods. As you'll see, a research project can draw on both deductive and inductive strategies.

Social theories do not provide the answers to the questions we pose as topics for research. Instead, social theories suggest the areas on which we should focus and the propositions that we should consider for a test. Figure 2.9 summarizes how the two theories that guided Braga et al.'s (2018) research and the theory that guided Paternoster et al.'s (1997) analysis relate to the question of whether body-worn cameras change police behavior. By helping us make such connections, social theory sensitizes us to the possibilities, thus helping us design better research and draw out the implications of our results. Before, during, and after a research investigation, we need to keep thinking theoretically.

**FIGURE 2.8** ■ The Links Between Theory and Data



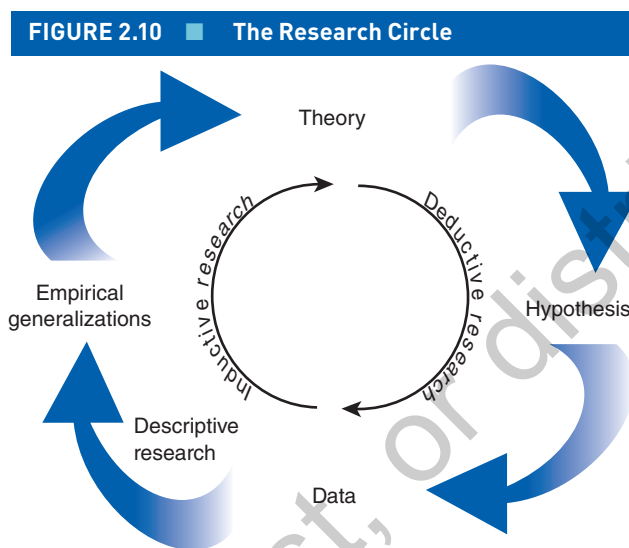
**FIGURE 2.9** ■ Two Social Theories Predicting Body-Worn Cameras Change Police Behavior



Source: Image based on text in Braga, Anthony A., William H. Sousa, James R. Coldren, and Denise Rodriguez. 2018. "The Effects of Body-Worn Cameras on Police Activity and Police-Citizen Encounters: A Randomized Controlled Trial." *Journal of Criminal Law and Criminology* 108(3):515–516.

## Explanatory Research

The process of conducting research designed to test explanations for social phenomena involves moving from theory to data and then back to theory. This process can be characterized with a **research circle** (Figure 2.10).



## Deductive Research

As Figure 2.10 shows, in **deductive research**, a specific expectation is deduced from a general theoretical premise and then tested with data that have been collected for this purpose. We call the specific expectation deduced from the more general theory a **hypothesis**. It is the hypothesis that researchers actually test, not the complete theory itself. A hypothesis proposes a relationship between two or more **variables**—characteristics or properties that can vary.

*Example of a hypothesis:* The higher the poverty rate in a community, the higher the percentage of community residents who are homeless.

*Example of a variable:* The degree of honesty in verbal statements.

Variation in one variable is proposed to predict, influence, or cause variation in the other. The proposed influence is the **independent variable**; its effect or consequence is the **dependent variable**. After the researchers formulate one or more hypotheses and develop research procedures, they collect data with which to test the hypothesis.

*Example of an independent variable:* Poverty rate.

*Example of a dependent variable:* Percentage of community residents who are homeless.



Hypotheses can be worded in several different ways, so identifying the independent and dependent variables is sometimes difficult. When in doubt, try to rephrase the hypothesis as an *if-then* statement: “If the independent variable increases (or decreases), *then* the dependent variable increases (or decreases).” Table 2.4 presents several hypotheses with their independent and dependent variables and their if-then equivalents.

**TABLE 2.4** ■ Examples of Hypotheses

Original Hypothesis	Independent Variable	Dependent Variable	If-Then Hypothesis	Direction of Association
1. The greater the use of the Internet, the greater the strength of distant family ties.	Level of Internet use	Strength of distant family ties	If Internet use is greater, then the strength of distant family ties is greater.	+
2. The risk of property theft decreases as income increases.	Income	Risk of property theft	If income is higher, then the risk of property theft is less.	-
3. If years of education decrease, income decreases.	Years of education	Income	If years of education decrease, then income decreases.	+
4. Political conservatism increases with income.	Income	Political conservatism	If income increases, then political conservatism increases.	+
5. Property crime is higher in urban areas than in suburban or rural areas.	Type of community	Rate of property crime	If areas are urban, then property crime is higher compared with crime in suburban or rural areas.	NA

Table 2.4 demonstrates another feature of hypotheses: **direction of association**. When researchers hypothesize that as values on one variable increase the values on the other variable increase, the direction of association is positive (Hypotheses 1 and 4). When one variable decreases as the other variable decreases, the direction of association is also positive (Hypothesis 3). But when values of one variable increase as the values of the other decrease or vice versa, the direction of association is negative, or inverse (Hypothesis 2). Hypothesis 5 is a special case, in which the independent variable is qualitative: It cannot be said to increase or decrease. In this case, the concept of direction of association does not apply, and the hypothesis simply states that one category of the independent variable is associated with higher values on the dependent variable.

Both explanatory and evaluative studies are types of deductive research. The study of effects of body-worn cameras by Braga et al. (2020) was an evaluative study because the researchers sought to explain how a government policy requiring police to wear cameras would affect police–citizen encounters and police work activities. The researchers deduced from deterrence theory the expectation that BWCs would deter crimes by both police and citizens

by increasing the likelihood of discovery and sanction. They then collected data to test this expectation.

In both explanatory and evaluative research, the statement of expectations for the findings and the design of the research to test these expectations strengthen the confidence we can place in the test. Deductive researchers show their hand or state their expectations in advance and then design a fair test of those expectations. Then, “the chips fall where they may”—in other words, the researcher accepts the resulting data as a reasonably objective picture of reality.

### Body-Worn Cameras and the Research Circle

Concern with the misapplication of police powers, including the incidence of police shootings, has resulted in many calls for police officers to be required to use body-worn cameras. But does the use of BWCs improve officer behavior and reduce the likelihood of police shootings and less harmful forms of aggressive policing? I will illustrate how the research circle works with some social science research conducted to answer this question. I will begin with an experimental study in Las Vegas designed by criminologist Anthony A. Braga, William H. Sousa, James R. Coldren Jr., and Denise Rodrigues (2018).

Braga et al.’s (2018) study was designed to test a hypothesis. According to deterrence theory, punishment will reduce recidivism, or the propensity to commit further crimes. From this theory, Braga et al. (2018:516) deduced the specific hypothesis that a BWC will reduce the likelihood of misconduct. In this hypothesis, wearing a body camera is the independent variable, and the likelihood of misconduct is the dependent variable (it is hypothesized to depend on the BWC). They expected that BWCs will have this deterrent effect because they increase “perceptions of the likelihood of apprehension and celerity [swiftness] of punishment.” Braga et al. also suggest that another theory, self-awareness theory, also predicts this effect of the use of BWCs.

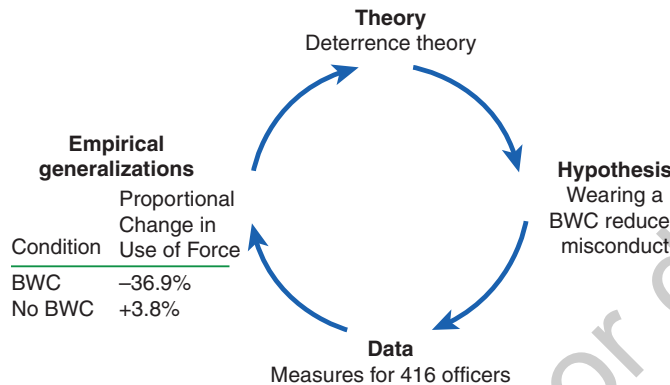
Of course, in another study, wearing body cameras might be the dependent variable in relation to some other independent variable. For example, in the hypothesis “The higher the rate of crime in a community, the lower the likelihood of police wearing body cameras,” the independent variable is the crime rate and the dependent variable is the likelihood of wearing BWCs. Only within the context of a hypothesis, or a relationship between variables, does it make sense to refer to one variable as dependent and the other as independent.

Braga et al. (2018) designed a test of their hypothesis with funding from the U.S. Department of Justice and in collaboration with the Las Vegas Metropolitan Police Department (LVMPD). In their experiment, 416 police officer volunteers were randomly assigned to wear a body camera or not to wear one for twelve months. As you’ll learn in Chapter 6, the random assignment ensured there were no systematic differences in the characteristics of the officers who wore body cameras and those who didn’t. The LVMPD also provided the researchers with detailed information on the characteristics of the officers who did not participate in the experiment. For the one-year period after the experiment began, the researchers tracked with department records the incidents that officers responded to, citizen complaints filed against officers, and use of force reports filed by the officers.

When the researchers examined the full year of data (police records for the officers in their experiment), they found that among those assigned to the treatment (BWC) condition, the decline in citizen complaints was 25.0% larger than for the control (no-BWC) condition. The percentage of officers in the BWC group who filed at least one use of force report declined by 40.7% more than in the no-BWC group. These patterns in the data, or **empirical generalizations**, were consistent with the hypothesis that the researchers deduced from deterrence theory.

The theory thus received support from the experiment (see Figure 2.11). Braga et al. (2018) also found the officers who had volunteered to participate in the experiment did not differ in their characteristics from those who did not volunteer, thus making it likely the findings could be generalized to the population of police officers in the LVMPD.

**FIGURE 2.11** ■ The Research Circle: Body-Worn Cameras



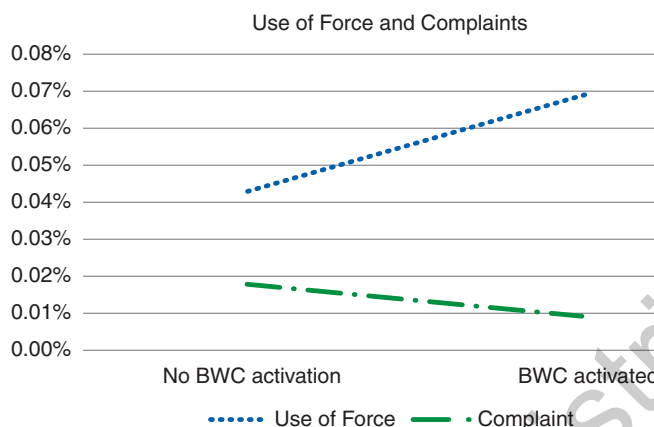
Source: Data from Braga et al. 2018:534.

But there were many reasons for Braga and his coauthors to be concerned with the validity of the effects they found and the uniqueness of the conditions for their study. In another article, Sousa et al. (2016) identified major challenges they encountered in the NVMPD study: potential “contamination” when control group officers (non-BWC) joined treatment group officers (BWC) in the response to a call; attrition from the experiment when officers moved to other positions; unavailability of the required technological supports for BWCs in some areas; allowing officer participation in the experiment to be voluntary. They adjusted some of their study procedures to at least partially overcome some of these challenges but also encouraged other researchers to initiate new research that would build on their experiences.

Most of the researchers who studied the effects of BWCs after the Braga et al. (2018) study probably did not do so in response to the Sousa et al. (2016) article, but we can think of the later BWC studies as representing additional trips around the research circle, some of them intended to **replicate** (repeat) the Braga et al. (2018) experiment in different cities and others simply pushing forward with related research questions and/or enhanced research designs.

Jessica Huff, Katz, and Hedberg (2020) studied the effect of BWCs in Phoenix. Like Braga et al. (2018), they used an experimental design, but in addition to using officers who volunteered to be in the experiment, they also added a mandate for some officers to participate in a later phase of the experiment. Unlike Braga et al. (2018), they also measured whether officers activated their BWC during each incident, and they distinguished different types of incidents (such as violent offense, property offense, and vehicle stops).

When they analyzed their data, Huff et al. (2020) found that BWC activation made a difference: When the BWC was activated, use of force reports increased and the frequency of citizen complaints decreased (see Figure 2.12).

**FIGURE 2.12** ■ Effect of BWC Activation on Use of Force and Complaints

In a new study in collaboration with the Boston Police Department, Anthony A. Braga and a different set of collaborators (2020) found that use of BWCs in a district generated “spillover effects” on police officers in those districts who were aware that BWCs might be present in an encounter. Another experimental study of BWCs in Australia, by Joseph Clare and his collaborators (2021), found that use of BWCs did not reduce the likelihood of citizen complaints or of filing of a use-of-force report and did not prove to have much impact on the outcomes of court cases resulting from the incidents. However, in this study, use of BWCs did increase the likelihood of police filing criminal charges and restraining orders against alleged offenders.

Thus, as studies about BWCs continued, the accumulating evidence indicated the use of BWCs often lessened the use of aggressive policing, but its effects varied with particular outcomes in relation to other aspects of the way the BWCs were deployed and with some differences apparently related to the location of use.

### Inductive Research

In contrast to deductive research, **inductive research** begins with specific data, which are then used to develop (induce) a general explanation (a theory) to account for the data. One way to think of this process is in terms of the research circle: Rather than starting at the top of the circle with a theory, the inductive researcher starts at the bottom of the circle with data and then develops the theory. Another way to think of this process is represented in Figure 2.13. In deductive research, reasoning from specific premises results in a conclusion that a theory is supported, but in inductive research, the identification of similar empirical patterns results in a generalization about some social process.

Inductive reasoning enters into deductive research when we find unexpected patterns in the data we have collected for testing a hypothesis. We may call these patterns **anomalous findings**. When these unexpected patterns lead to new explanations, insights, or theoretical approaches, we call them **serendipitous findings**. However, the adequacy of an explanation formulated after the fact is necessarily less certain than an explanation presented before the collection of data and tested in a planned way with the data. Every phenomenon can always be explained in *some* way. Inductive explanations are thus more trustworthy if they are confirmed subsequently with deductive research.

**FIGURE 2.13** ■ Deductive and Inductive Reasoning**Deductive**

- Premise 1: All unemployed spouse abusers recidivate.  
 Premise 2: Joe is an unemployed spouse abuser.  
 Conclusion: **Joe will recidivate.**

**Inductive**

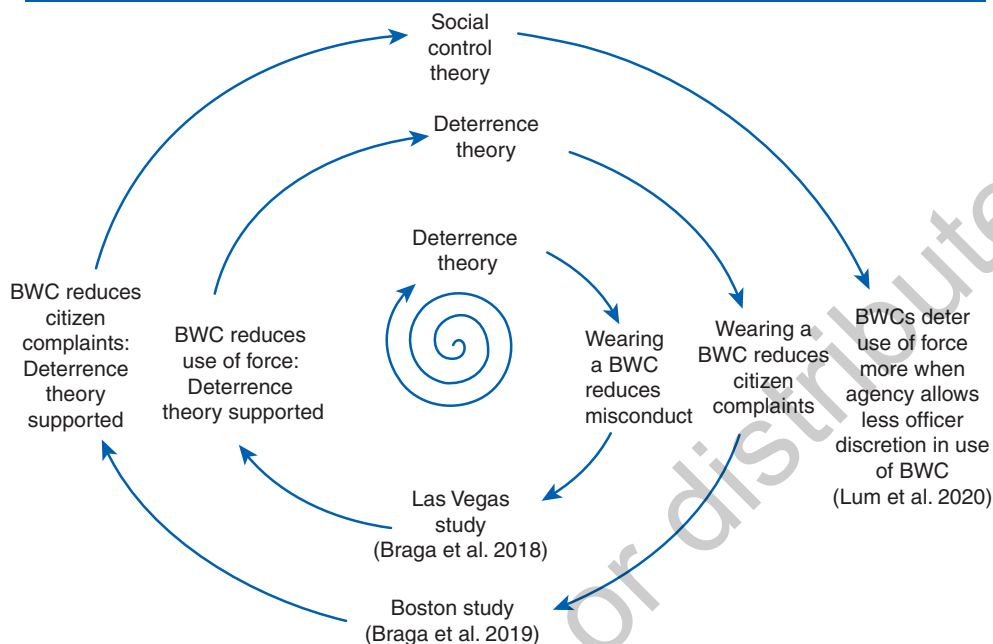
- Evidence 1: Joe, an unemployed spouse abuser, recidivated.  
 Evidence 2: Harold, an unemployed spouse abuser, recidivated.  
 Evidence 3: George, an employed spouse abuser, didn't recidivate.  
 Conclusion: **All unemployed spouse abusers recidivate.**

**An Inductive Approach to Explaining Support for Black Lives Matter**

Miller, O'Dea, and Donald (2021) hypothesized that higher levels of anti-Black sentiment and lower levels of belief that white privilege exists or that racism is a systemic problem would be associated with less support for Black Lives Matter. They tested these and related hypotheses with a sample of 225 participants recruited for online surveys. They measured their independent variables with multi-question indexes like the Modern Racism Scale (McConahay 1986) and the White Privilege Attitudes Scale (Pinterits, Paul, and Spanierma 2009). Measures of their dependent variables included three questions about the extent of support for Black Lives Matter or for two phrases that are used to indicate disagreement with the BLM movement: All Lives Matter and Blue Lives Matter. They tested their hypotheses and found them confirmed. All very deductive so far.

But their research took an inductive turn when Miller et al. (2021) wondered whether respondents' conceptualizations of prejudice as a systemic or individual issue would predict support for efforts to address social inequalities between white people and people of color. In this exploratory analysis, they found that when they compared people having similar levels of beliefs that racism is an individual problem, those with stronger beliefs that racism is a systemic problem tended to perceive more inequality in the United States, were more supportive of Black Lives Matter and less supportive of Blue Lives Matter and All Lives Matter, and were more supportive of white people and people of color protesting inequality. The researchers also explored differences in perceptions of how white people and people of color should protest inequality in the U.S. and found multiple patterns of influence on these protest beliefs. Although these associations were not hypothesized in advance of the analysis, they can enrich the interpretation of the hypothesized associations and suggest directions for future research.

The investigations conducted to answer the general research question about the impact of BWCs have generated a substantial body of scholarship that provides a picture of the generalizability of findings and that addresses many more specific questions about conditions that affect the impact of BWCs. Researchers have now traversed the research circle multiple times in these investigations, a process better described as a spiral (see Figure 2.14). Many investigations have traversed the research circle in a deductive, hypothesis-testing way. They started with theory and then deduced and tested hypotheses. Others have been more inductive or have had an inductive component: They started with empirical generalizations from the data they had already obtained and then turned to a new theory to account for the unexpected patterns in the data.

**FIGURE 2.14** ■ The Research Spiral: Body-Worn Camera Experiment

Sources: Braga, A. A., Barao, L. M., Zimmerman, G. M., Douglas, S., and Sheppard, K. 2019. "Measuring the Direct and Spillover Effects of Body Worn Cameras on the Civility of Police-Citizen Encounters and Police Work Activities." *Journal of Quantitative Criminology* (<https://doi.org/10.1007/s10940-019-09434-9>).

Lum, Cynthia, Christopher S. Koper, David B. Wilson, Megan Stoltz, Michael Goodier, Elizabeth Eggins, Angela Higginson, and Lorraine Mazerolle. 2020. "Body-Worn Cameras' Effects on Police Officers and Citizen Behavior: A Systematic Review." *Campbell Systematic Reviews* 16:e1112 (<https://doi.org/10.1002/cl2.1112>).

### Exploratory Research

Qualitative research is often exploratory and, hence, inductive: The researchers begin by observing social interaction or interviewing social actors in depth and then developing an explanation for what has been found. The researchers often ask questions such as "What is going on here?" "How do people interpret these experiences?" or "Why do people do what they do?" Rather than testing a hypothesis, the researchers are trying to make sense of some social phenomenon. They may even put off formulating a research question until after they begin to collect data—the idea is to let the question emerge from the situation itself (Brewer and Hunter 1989:54–58).

### Black Youths' Strategies for Navigating Police Contact

How do young Black people attempt to shape encounters with police officers? Black youth are more likely than others to be the targets of aggressive policing, and Brittany N. Fox-Williams (2019) used exploratory research methods to begin to understand how they respond to encounters with the police rather than how police respond to them. For this purpose, Fox-Williams recruited as her interviewees 19 young Black New York City residents who were identified as "on track," meaning they were in school or working and committed to mainstream goals like a college degree and a middle-class occupation. Interviews occurred either in small groups that lasted one to one and one-half hours or in individual interviews for about an hour; some participated in both group and individual interviews. Her open-ended questions

allowed participants to discuss their strategies for interacting with police in their own words. Fox-Williams then reviewed the interview transcripts carefully and identified major themes that emerged in the comments.

Three of the most common strategies youth used in their encounters with police that Fox-Williams identified were avoidance, management, and symbolic resistance. The following quote describes a young man's use of an avoidance strategy (Fox-Williams 2019:124).

“I'm not thinking anything, just keep walking. . . . I just feel like a robot, no emotion. . . . My mind is really clear in that moment because I don't want to look suspicious.”

The Fox-Williams (2019) example illustrates how qualitative data can enrich understanding of the social world by revealing how participants make sense of and manage their social experiences. It also provides another perspective on the negative consequences of aggressive policing.

Explanations developed inductively from qualitative research can feel authentic because we have heard what people have to say in their own words and we have tried to see the social world as they see it. Explanations derived from qualitative research will be richer and more finely textured than they often are in quantitative research, but they are likely to be based on fewer cases from a limited area. We cannot assume the people studied in this setting are like others or that other researchers will develop explanations similar to ours to make sense of what was observed or heard. Because we do not initially set up a test of a hypothesis according to some specific rules, another researcher cannot come along and conduct the same test.

## Descriptive Research

You learned in Chapter 1 that some social research is purely descriptive. Such research may not itself connect theory and data, but it is still a part of the research circle—it begins with data and proceeds only to the stage of making empirical generalizations based on those data (refer to Figure 2.10).

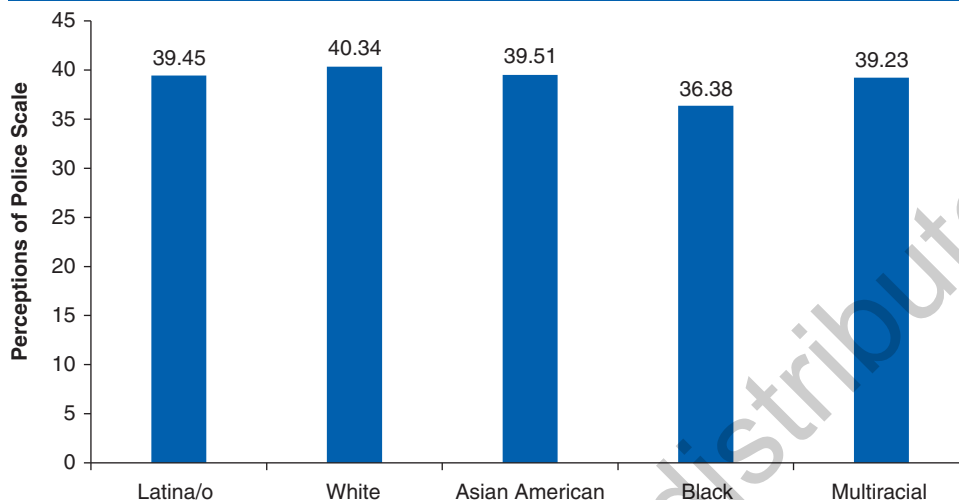
Valid description is important in its own right—and it is a necessary component of all investigations. Government agencies and nonprofit organizations frequently sponsor research that is primarily descriptive: How many poor people live in this community? Is the health of the elderly improving? How frequently do convicted criminals return to crime? Simply put, a good description of data is the cornerstone of the scientific research process and an essential component for understanding the social world.

Nadal et al. (2017) used both quantitative and qualitative methods to develop a description of perceptions of the police and to examine whether these perceptions differed between racial/ethnic groups and by age and gender. They recruited for a brief survey both students in a large urban minority-serving college and general community members. They then asked a subset of these respondents some questions about their own experiences with police.

The survey identified Black respondents as having a markedly less positive perception of the police than respondents in the other groups (Figure 2.15). The qualitative answers helped to explain why. For example, an 18-year-old Black man said, “The police told me they stopped me because I looked suspicious.”

Good descriptive research can also stimulate more ambitious deductive and inductive research. Nadal et al. (2017:827) suggest the need “for more research to focus on how community policing affects different racial groups.”



**FIGURE 2.15** ■ Perceptions of Police by Race and Gender

Source: Based on Nadal, Kevin L., Kristin C. Davidoff, Neil Allicock, Chrine R. Serpe, and Tanya Erazo. 2017. "Perceptions of Police, Racial Profiling, and Psychological Outcomes: A Mixed Methodological Study." *Journal of Social Issues* 73(4):808-830.

## SOCIAL RESEARCH STANDARDS

Social science research can improve our understanding of empirical reality—the reality we encounter firsthand. We have achieved the goal of **validity** when our conclusions about this empirical reality are correct. I look out my window and observe that it is raining—a valid observation, if my eyes and ears are to be trusted. I pick up the newspaper and read that the rate of violence may be climbing after several years of decline. I am less certain of the validity of this statement, based as it is on an interpretation of some trends in crime indicators obtained through some process that isn't explained. As you learned in this chapter, many social scientists who have studied police interaction with citizens came to the conclusion that there are racial biases in police shootings and also that body-worn cameras can reduce the frequency of police–citizen interactions that produce citizen complaints. However, there are many factors that affect the impact of BWCs, and more research is needed to guide public policies that seek to use BWCs to reduce problems due to aggressive policing.

If validity sounds desirable to you, you're a good candidate for becoming a social scientist. If you recognize that validity is often a difficult goal to achieve, you may be tough enough for social research. In any case, the goal of social science is not to come up with conclusions that people will like or conclusions that suit our own personal preferences. The goal is to figure out how and why the social world—some aspect of it—operates as it does. In *Investigating the Social World*, we are concerned with three standards for validity: (1) **measurement validity**, (2) **generalizability**, and (3) **causal validity** (also known as **internal validity**) (Hammersley 2008:43). We will learn that invalid measures, invalid generalizations, or invalid causal inferences will result in invalid conclusions. We will also focus on the standard of **authenticity**, a concern with reflecting fairly the perspectives of participants in a setting that we study.

## Measurement Validity

Measurement validity is our first concern in establishing the validity of research results because without having measured what we think we measured, we really don't know what we're talking about. Measurement validity is the focus of Chapter 4. A measure is valid when it measures what we think it measures. In other words, if we seek to describe the frequency of domestic violence in families, we need to develop a valid procedure for measuring domestic violence.

The first step in achieving measurement validity is to specify clearly what it is we intend to measure. Patricia Tjaden and Nancy Thoennes (2000) identified this as one of the problems in the area of research on domestic violence: “definitions of the term vary widely from study to study, making comparisons difficult” (p. 5). To avoid this problem, Tjaden and Thoennes (2000) presented a clear definition of what they meant by *intimate partner violence*:

Rape, physical assault, and stalking perpetrated by current and former dates, spouses, and cohabiting partners, with cohabiting meaning living together at least some of the time as a couple. (p. 5)

Tjaden and Thoennes also provided a measure of each type of violence. For example, “‘physical assault’ is defined as behaviors that threaten, attempt, or actually inflict physical harm” (Tjaden and Thoennes 2000:5). With this definition in mind, Tjaden and Thoennes (2000:6) then specified the set of questions they would use to measure intimate partner violence (the questions pertaining to physical assault):

Not counting any incidents you have already mentioned, after you became an adult, did any other adult, male or female, ever:

- Throw something at you that could hurt?
- Push, grab, or shove you?
- Pull your hair?
- Slap or hit you?
- Kick or bite you?
- Choke or attempt to drown you?
- Hit you with some object?
- Beat you up?
- Threaten you with a gun?
- Threaten you with a knife or other weapon?
- Use a gun on you?
- Use a knife or other weapon on you?

Do you believe that answers to these questions provide a valid measure of having been physically assaulted? Do you worry that some survey respondents might not report all the assaults they have experienced? Might some respondents make up some incidents? Issues like

these must be considered when we evaluate measurement validity. Suffice it to say that we must be very careful in designing our measures and in subsequently evaluating how well they have performed. Chapter 4 introduces several different ways to test measurement validity. We cannot just *assume* that measures are valid.

## Generalizability

The generalizability of a study is the extent to which it can be used to inform us about persons, places, or events that were not studied. Generalizability is the focus of Chapter 5.

You have already learned in this chapter that the Braga et al. (2018) findings about the effect of BWCs on police behavior did not hold up in some studies in other locations: As you know, this led to additional research to figure out what accounted for the different patterns in different locations.

If every person or community we study were like every other one, generalizations based on observations of a small number would be valid. But that's not the case. We are on solid ground if we question the generalizability of statements about research based on the results of a restricted sample of the population or in just one community or other social context.

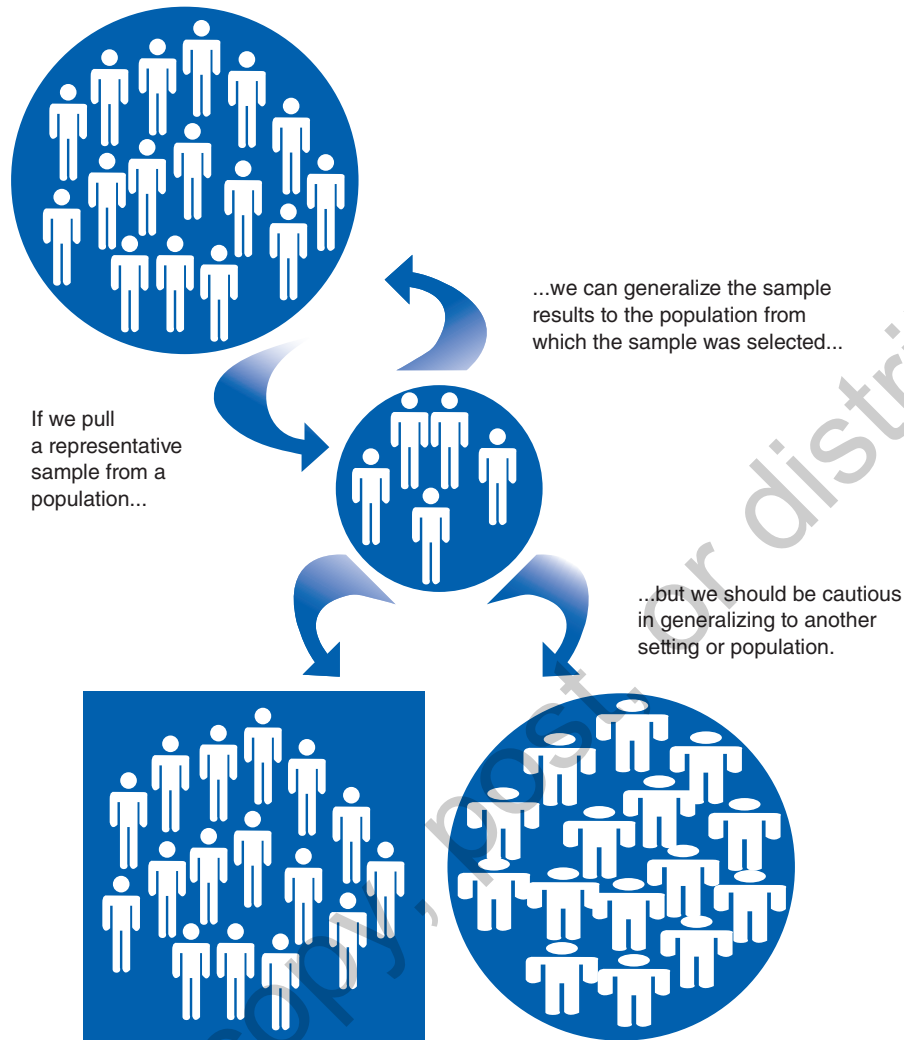
Generalizability has two aspects. **Sample generalizability** refers to the ability to generalize from a sample, or subset, of a larger population to that population itself. This is the most common meaning of generalizability. **Cross-population generalizability** refers to the ability to generalize from findings about one group, population, or setting to other groups, populations, or settings (see Figure 2.16). Cross-population generalizability can also be referred to as **external validity**. (Some social scientists equate the term *external validity* to *generalizability*, but in this book, I restrict its use to the more limited notion of cross-population generalizability.)

Sample generalizability is a key concern in survey research. Political pollsters may study a sample of likely voters, for example, and then generalize their findings to the entire population of likely voters. No one would be interested in the results of political polls if they represented only the relatively tiny sample that actually was surveyed rather than the entire population. The procedures for the National Violence Against Women Survey that Tjaden and Thoennes (2000) relied on were designed to maximize sample generalizability.

Cross-population generalizability occurs to the extent that the results of a study hold true for multiple populations; these populations may not all have been sampled or they may be represented as subgroups within the sample studied. This was the problem that arose in relation to a study that Sherman and Berk (1984) conducted of the impact of a mandatory arrest policy for police responding to calls about domestic violence in Minneapolis. Persons arrested for the same crime in several other locations in subsequent studies did not respond in the same way. The conclusions from Sherman and Berk's (1984) initial research in Minneapolis were not "externally valid."

Generalizability is a key concern in research design. We rarely have the resources to study the entire population that is of interest to us, so we have to select cases to study that will allow our findings to be generalized to the population of interest. Chapter 5 reviews alternative approaches to selecting cases so that findings can be generalized to the population from which the cases were selected. Nonetheless, because we can never be sure that our findings will hold under all conditions, we should be cautious in generalizing to populations or periods that we did not sample.

FIGURE 2.16 ■ Sample and Cross-Population Generalizability



### Causal Validity

*Causal validity*, also known as *internal validity*, refers to the truthfulness of an assertion that A causes B. It is the focus of Chapter 6.

Most research seeks to determine what causes what, so social scientists frequently must be concerned with causal validity. Braga et al. (2018) were concerned with the effect of BWCs on the likelihood of citizen complaints about police actions. To test their causal hypothesis, Braga et al. designed their experiment so that some police responding to incident reports wore body cameras while some responding to other incident reports did not. Of course, it may seem heavy-handed for social scientists to influence police actions for the purpose of a research project, but this step reflects just how difficult it can be to establish causally valid understandings about the social world. Only because police did not get to choose whether they would wear a body camera when responding to an incident can we be reasonably sure that the officers wearing body cameras and the incidents they were responding to were very similar to the officers who were *not* wearing body cameras and the incidents they were responding to.

Chapter 6 will give you much more understanding of how some features of a research design can help us evaluate causal propositions. However, you will also learn that the solutions are neither easy nor perfect: We always have to consider critically the validity of causal statements that we hear or read.

### Authenticity

The goal of authenticity is stressed by researchers who focus attention on the subjective dimension of the social world. An authentic understanding of a social process or social setting is one that reflects fairly the various perspectives of participants in that setting (Gubrium and Holstein 1997). Authenticity is one of several different standards proposed by some observers as uniquely suited to qualitative research; it reflects a belief that those who study the social world should focus first and foremost on how participants view that social world rather than on developing a unique social scientists' interpretation of that world. Rather than expecting social scientists to be able to provide a valid mirror of reality, this perspective emphasizes the need for recognizing that what is understood by participants as reality is a linguistic and social construction of reality (Kvale 2002:306).

Angela M. Moe (2007) explained her basis for considering the responses of women she interviewed in a domestic violence shelter to be authentic:

Members of marginalized groups are better positioned than members of socially dominant groups to describe the ways in which the world is organized according to the oppressions they experience. (p. 682)

Moe's (2007) assumption was that "battered women serve as experts of their own lives" (p. 682). Adding to her assessment of authenticity, Moe (2007) found that the women "exhibited a great deal of comfort through their honesty and candor" as they produced "a richly detailed and descriptive set of narratives" (p. 683). You will learn more about how authenticity can be achieved in qualitative methods in Chapters 10 and 11.

## CONCLUSIONS

Selecting a worthy research question does not guarantee a worthwhile research project. The simplicity of the research circle presented in this chapter belies the complexity of the social research process. In the following chapters, I focus on particular aspects of the research process. Chapter 4 examines the interrelated processes of conceptualization and measurement, arguably the most important part of research. Measurement validity is the foundation for the other two aspects of validity. Chapter 5 reviews the meaning of generalizability and the sampling strategies that help us achieve this goal. Chapter 6 introduces causal validity and illustrates different methods for achieving it. Most of the remaining chapters then introduce different approaches to data collection—experiments, surveys, participant observation and intensive interviewing, evaluation research, comparative historical research, Big Data analysis, secondary data analysis, and content analysis—that help us, in different ways, achieve results that are valid.

Of course, our answers to research questions will never be complete or entirely certain. We always need to ground our research plans and results in the literature about related research. Our approach should be guided by explicit consideration of a larger theoretical framework. When we complete a research project, we should evaluate the confidence that can be placed in our conclusions, point out how the research could be extended, and consider the implications for social theory. Recall how the elaboration of knowledge about deterrence of domestic

violence required sensitivity to research difficulties, careful weighing of the evidence, identification of unanswered questions, and consideration of alternative theories.

If you will conduct your own research, consider keeping a research journal in which you keep track of your decisions, question yourself at each step, and reflect on what you are reading and experiencing (Ravitch and Riggan 2016:216). It will help a lot when it comes time to write up the methods you have used.

Owning a large social science toolkit and even working with a good research team is no guarantee for making the right decisions about which tools to use and how to use them in the investigation of particular research problems. However, you are now forewarned about and thus I hope forearmed against some of the problems that social scientists face in their work. I hope that you will return often to this chapter as you read the subsequent chapters, when you criticize the research literature, and when you design your own research projects. To be conscientious, thoughtful, and responsible—this is the mandate of every social scientist. If you formulate a feasible research problem, ask the right questions in advance, try to adhere to the research guidelines, and steer clear of the most common difficulties, you will be well along the road to fulfilling this mandate.

## KEY TERMS

Anomalous findings (p. 62)	Inductive research (p. 62)
Authenticity (p. 66)	Internal validity (causal validity)
Causal validity (internal validity)	Measurement validity (p. 66)
Conflict theory (p. 39)	Normal science (p. 40)
Cross-population generalizability (external validity)	Rational choice theory (p. 38)
Deductive research (p. 58)	Research circle (p. 58)
Dependent variable (p. 58)	Sample generalizability (p. 68)
Direction of association (p. 59)	Scientific paradigm
Empirical generalization	Serendipitous findings (p. 62)
External validity (cross-population generalizability)	Social research question (p. 33)
Functionalism (p. 39)	Symbolic interaction theory (p. 38)
Generalizability (p. 66)	Systematic review (p. 51)
Hypothesis (p. 58)	Theory (p. 37)
Independent variable (p. 58)	Validity (p. 66)
	Variable

## HIGHLIGHTS

### LO 2.1 Appraise social research questions based on their feasibility, social importance, and scientific relevance.

- Social research questions should be feasible in that one is able to conduct a study to answer them with the time and resources available and gain access to the group one desires to study.
- Social research questions should have a focus on a substantive area of importance.
- Social research questions should be scientifically relevant and grounded in the social science literature.

### LO 2.2 Compare the concepts of “theory” and “paradigm.”



- A theory is a logically interrelated set of propositions that help us make sense of many interrelated phenomena and predict behavior or attitudes that are likely to occur under certain conditions.
- A scientific paradigm is a set of beliefs that guide scientific work in an area, including unquestioned presuppositions, accepted theories, and exemplary research findings.

**LO 2.3 Devise a strategy for searching the literature and the web about a research question.**

- Choose bibliographic databases for your search that compile references from the peer-reviewed journals in your area(s) of interest.
- Identify your research question, appropriate bibliographic databases to search, and a tentative list of search terms.
- Narrow your search using Boolean search logic and appropriate subject descriptors.
- Locate the articles.
- Search the web for related research reports and other unpublished sources, research project websites, and other material relevant to your research question, but be careful to focus on credible sources and to limit your search to the most relevant topics.

**LO 2.4 Design a literature review for a research question.**

Reviewing peer-reviewed journal articles that report prior research is an essential step in designing new research.

- Summarize each selected article in a single-article review.
- Integrate the article reviews to highlight the implications of the articles for different aspects of your research question and procedures.
- Seek systematic reviews that have integrated the findings on your research question.

**LO 2.5 Assess when a research project is designed to answer primarily a deductive or an inductive research question.**

- Research based on deductive reasoning proceeds from general ideas, deduces specific expectations from these ideas, and then tests the ideas with empirical data.
- Research based on inductive reasoning begins with specific data and then develops general ideas or theories to explain patterns in the data.

**LO 2.6 Compare the four standards for social research: measurement validity, generalizability, causal validity, and authenticity.**

- Measurement validity exists when a measure measures the thing we think it measures.
- There are two aspects of generalizability. Sample generalizability refers to the ability to generalize from a subset of a population (a sample) to the entire population. Cross-population generalizability (external validity) refers to the ability to apply findings about one population to other populations.
- Causal (internal) validity refers to the truthfulness of an assertion that A causes B.
- Authenticity means reflecting fairly the various perspectives of participants in that setting.

## DISCUSSION QUESTIONS

1. Pick a social issue about which you think research is needed. Draft three research questions about this issue. Refine one of the questions and evaluate it in terms of the three criteria for good research questions.
2. Identify variables that are relevant to your three research questions. Now formulate three related hypotheses. Which are the independent and which are the dependent variables in these hypotheses?
3. If you were to design research about police–citizen interaction, would you prefer an inductive approach or a deductive approach? Explain your preference. What would be the advantages and disadvantages of each approach? Consider in your answer the role of social theory, the value of searching the literature, and the goals of your research.
4. Braga et al.'s (2020) study of the effect of body-worn cameras tested a prediction derived from rational choice theory. Propose hypotheses about the effect of body-worn cameras that are consistent with conflict and symbolic interactionist theories. Which theory seems to you to provide the best framework for understanding the effect of body-worn cameras?
5. Review my description of the research projects in the section “Types of Social Research” in Chapter 1. Can you identify the stages of each project corresponding to the points on the research circle? Did each project include each of the four stages? Which theory (or theories) seems applicable to each of these projects?
6. Fox-Williams (2019) studied responses of Black youth to encounters with the police using an exploratory research approach. Why do you think the researcher adopted this approach? Do you agree with their decision? Propose a research project that would address issues in one of these studies with a deductive approach.
7. Critique the Braga et al. (2020) research on the effect of body-worn cameras from the standpoint of measurement validity, generalizability, and causal validity. What else would you like to know about this research so that you can strengthen your critique? What does consideration of the goal of authenticity add to your critique?

## SPSS EXERCISES

1. Describe beliefs about police.  
 After opening the GSS2020 data file, click Analyze/Descriptive Statistics/Frequencies and find the variable poltrblk\_2. (Right click on the list of variables and tell it to display variable names instead of variable labels and sort alphabetically.) Then, move it into the variable list and click OK. Examine the output file. To what extent would you say people feel police treat white people better than Black people?  
 After opening the GSS2020 data file, click Analyze/Descriptive Statistics/Frequencies and find the variable defund\_2. (Right click on the list of variables and tell it to display variable names instead of variable labels and sort alphabetically.) Then, move it into the variable list and click OK. Examine the output file. What percentage of the sample favored defunding the police?

2. Test 2 hypotheses that predict support for defunding the police. Let's try education level and region of the country. Would you hypothesize that support for defunding the police would increase or decrease with educational level? Would you hypothesize that support for defunding the police would be higher in some regions of the United States than in others? Write out your hypotheses and then go on to steps a. and b. to test them.
  - a. By degree—How did support for defunding vary by education level?
    - i. Click on Analyze/Descriptive Statistics/Crosstabs.
    - ii. Highlight defund\_2 and click on the arrow so that it moves into the Rows box; highlight degree\_2 and click on the arrow to move it into the Columns box.
    - iii. Click on Cells, click off Counts-Observed, and click on Percentages-Column.
    - iv. Click Continue and then OK. Inspect the table.
  - b. By region—How did support for defunding vary by region?
    - i. Click on Analyze/Descriptive Statistics/Crosstabs.
    - ii. Highlight defund\_2 and click on the arrow so that it moves into the Rows box; highlight region\_2 and click on the arrow to move it into the Columns box.
    - iii. Click on Cells, click off Counts-Observed, and click on Percentages-Column.
    - iv. Click Continue and then OK. Inspect the table.

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