

Social Scientific Research

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Preface

While research design and methods may seem like a rather prosaic subject, it is an important tool for *understanding* fascinating and important questions in the world, such as why third place winners in athletic competitions are happier than second place winners; why poor people with the least amount of money to waste tend to play the lottery more than rich people; and why authoritarian states with poor human rights records in their own countries extend humanitarian aid to other countries. Knowledge of this subject can also help you to *evaluate* existing research in order to make informed personal and professional decisions, such as what political candidates to vote for based on the likely effects of their proposed policies; how to challenge claims put forward by the opposing side in a legal case; and whether donating to a charity is really helping the recipient and in what ways. Fluency, moreover, in research design and methods is essential for *conducting* your own research in order to make decisions based on sound scientific evidence rather than personal experiences, anecdotal evidence, and hunches. The latter may be uninformative at best and misleading at worst.

Background

Social Scientific Research was born largely from my experience teaching research methods courses and workshops, building and directing an undergraduate thesis program in political science, and advising numerous senior theses and doctoral dissertations. For me, it was impossible to find a single textbook that discussed at length questions related to research design, as well as the diverse range of qualitative and quantitative methods used in my field, in an engaging and entertaining manner, and at a level where students would not only be able evaluate existing research using these methods, but to also conduct their own research using them. *Social Scientific Research* seeks to rectify these issues.

Objectives

The goals of *Social Scientific Research* are threefold. The first is to provide a thorough introduction to research design. To this end, *Social Scientific Research* devotes entire chapters to identifying research puzzles, organizing literature reviews, constructing useful concepts, building compelling arguments, and writing effectively. The second is to provide a comprehensive introduction to a full range of qualitative and quantitative

methods that adhere to a positivist research paradigm. Many textbooks include only qualitative approaches or quantitative methods, and a limited number of methods within each approach. *Social Scientific Research*, however, includes both and introduces an array of methods within each approach. The qualitative methods include: interviews, focus groups, participant observation, process tracing, and the comparative case study method. The quantitative methods include: content analysis, surveys, observational studies and experiments. The discussion of these methods emphasizes the strengths and weaknesses of these methods, especially in comparison to other methods, rather than technical detail. Yet, the methodological chapters still provide sufficient practical content for readers to implement the methods based on them.

The third is to present the subject of research design and methods in an entertaining and engaging style. To this end, *Social Scientific Research* includes numerous interesting and lively examples based on everyday experiences, contemporary world events, and academic research. *Social Scientific Research* also includes many exercises in which readers are asked to apply the concepts and techniques learned in each chapter in order to deepen their understanding of them. Both the examples and the exercises address a range of subjects important in the social sciences and require no background information other than that which is provided in the exercise.

Contents Overview

Part I provides an introduction to the research process. Chapter 1 explains what defines and distinguishes research in the social sciences from research in other disciplines. Chapter 2 discusses the main issues of concern regarding research ethics. Chapter 3 provides guidance on developing good research questions, while Chapter 4 explains the process of constructing a literature review around these questions.

Part II focuses on the nuts and bolts of developing causal arguments. Chapter 5 outlines the criteria and process of developing concepts used to build these arguments, while Chapter 6 discusses different types of causal relationships and common errors of causal inference.

Part III discusses issues related to method and case selection. Chapter 7 outlines the primary differences between qualitative and quantitative approaches to research, as well as a number of issues researchers may consider in choosing which approach to use. Chapter 8 discusses mixed methods research designs and the ways in which qualitative and quantitative research are combined in them. Chapter 9 moves on to discuss case selection in terms of both the number of cases selected and the process by which they are selected.

Part IV introduces different types of qualitative research methods. Chapters 10 and 11 present interviews and group interviews, known as focus groups, respectively. Chapter 12 describes participant observation, which involves the immersion of researchers into the environment of their subjects for an extended period of time. Chapter 13 discusses process

tracing, which is a single-case study design, while Chapter 14 presents the comparative case study method, which is a multi-case study design.

Part V switches perspectives and introduces different types of quantitative research methods. Chapter 15 discusses the types of and criteria used to evaluate measures while Chapter 16 discusses these issues in regards to quantitative data. Chapter 17 explains the method of content analysis, which is used to transform qualitative data into quantitative measures and data. Chapters 18 and 19, meanwhile, discuss two quantitative methods in which researchers interact with their subjects and/or their environments – surveys and experiments, while Chapter 20 describes observational studies in which researchers do neither.

Part VI concludes by offering guidance on writing up the results of one's research, from the overall organization of the presentation of the results to the nitty-gritty of style and verbiage.

Features

At the beginning of every chapter, there is a list of objectives. Within each chapter, there are tables and boxes that summarize key points discussed in the text, and provide additional information that is not included in, but that is no less important than, the information included in the text. There are also many examples in each chapter to elucidate the key concepts. At the end of each chapter, there is a list of key points and suggestions for further reading. There are also numerous exercises at the end of each chapter in which readers can practice the key concepts and techniques introduced in each chapter. For ease of reference, there is also a glossary at the end of the book summarizing the most important terms and concepts used in each of the chapters.



I INTRODUCTION



What is Social Science Research?

Objectives

- explain the goals, subjects, and orientations of social science research
- differentiate between positivist and non-positivist research
- introduce the steps in the scientific method
- debate the 'scientific' nature of social science research

Social science research strives to understand human behavior. While the term 'social' refers to the object of social science research – human behavior – the term 'science' refers to the methodological approach by which human behavior is analyzed. The social sciences encompass a range of disciplines including anthropology, business, criminology, economics, education, political science, psychology, sociology, and so forth. Research in these

disciplines is distinguished from each other not in terms of the type of human behavior that it examines – since no type of human behavior is the exclusive domain of any one of these disciplines – but in terms of the emphasis they place on particular behaviors, as well as the *methods* they tend to use to study them.

Consider the subject of education. Anthropological research on education is more likely to focus on the effects of culture on academic opportunities and learning behaviors than economics. Research on education in economics is likely to focus instead on the employment opportunities and gains to earnings derived from education, while research in political science and criminology is more apt to study the reductive effect of education on violent behavior. To understand these issues, economics, political science, and criminology rely heavily on quantitative methods while anthropology tends to rely on qualitative methods.

Regardless of discipline, social scientific research adheres to a positivist epistemology and as such, uses the scientific method to understand human behavior. *Epistemology* is the study of the nature, scope, and production of human knowledge. It is concerned with philosophical questions such as: ‘What is knowledge?’, ‘How is knowledge acquired?’, ‘How much do we, or can we, know?’

Epistemology is often mentioned in conjunction with the term ontology, but is quite distinct from ontology. The term *ontology* refers to the study of the nature of being or existence. It is concerned, in contrast, with questions such as ‘What is existence?’ and ‘What can be said to exist?’ and whether or not it is possible to construct a taxonomy of all things that exist.

A positivist epistemology maintains that an objective reality or truth exists in the world independent of the observer, and that this reality can be understood using the scientific method. In accordance with the scientific method, a positivist methodology is open to the use of either qualitative or quantitative research methods. These methods are distinguished from each other in terms of the type of data that they employ. Qualitative research methods employ verbal, written, or visual data, while quantitative research methods utilize data that are numeric in form.

A non-positivist epistemology, in contrast, maintains that an objective reality does not exist independent of human perception, and that it is impossible to study a phenomenon without influencing it or being influenced by it. Non-positivist research also rejects the scientific method and the use of quantitative methods. It relies instead on qualitative research techniques. Many of these techniques are used in positivist research, such as interviews, focus groups, and participant observation, but others are the exclusive bailiwick of non-positivist research, such as hermeneutics and narrative analysis.

Positivists assert, for example, that there is an objective phenomenon known as food insecurity, which is defined generally as a lack of access to adequate, safe, nutritious, and culturally appropriate food, and that food insecurity can be measured using numeric data, such as caloric intake, anthropometry, and so forth. Non-positivists argue instead that food insecurity is a socially constructed term that cannot be quantified with the aforementioned measures. Non-positivists further argue that food insecurity ought to be understood in terms of communities’ own conceptions of what it means to feel hungry and that groups

ought to be allowed to define for themselves appropriate markers of food insecurity through interviews, focus groups, and so forth.

The Scientific Method

The *scientific method*, which positivists embrace and non-positivists reject, is a set of procedures used to test hypotheses about phenomena based on the collection and analysis of data through observation, interaction, or experimentation. The scientific method includes six basic steps. These steps are illustrated in Figure 1.1 and elaborated on in further detail in subsequent chapters. To elucidate the steps in the scientific method, the question of why food insecurity has declined in developing countries in the last 20 years is used as an example.

The first step in the scientific method involves *identifying a problem* in need of analysis and developing a research question around it. The question of food insecurity is an important issue because, although food insecurity has declined, millions of people, primarily in

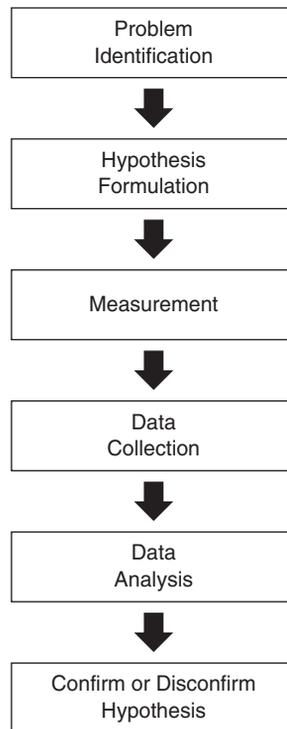


Figure 1.1 Scientific method

Africa and Asia, are still food insecure. The fact that food insecurity has declined in developing countries in the last 20 years is puzzling since droughts have become increasingly more severe in the last few decades, and the total number of ongoing civil wars in the world has increased. Civil wars, and intrastate conflict in general, contribute to food insecurity because they disrupt food production and prevent the delivery of humanitarian aid to food insecure areas.

The second step in the scientific method entails *developing hypotheses* in order to explain the problem at hand. *Hypotheses* are suppositions put forward to explain a given phenomenon. Any research project may include more than one hypothesis since there can be more than one factor that explains a given outcome. A potential hypothesis to explain the decline in food insecurity in the last two decades is the concurrent improvement in governance in this period.

Governance is a broad term referring to the process by which political decisions are made and implemented. One aspect of governance likely to be related to food insecurity is the extent to which the poor – those most likely to experience shortages in nutritious food – are able to vote for representatives in government, and the extent to which these representatives are beholden to their constituents. As Amartya Sen famously declared, ‘No famine has ever taken place in the history of the world in a functioning democracy’ (1999: 16). If the poor are given the opportunity to vote in democratic elections, food insecurity is expected to decline because the poor are likely to elect candidates who endorse legislation addressing issues of food security (Blaydes and Kayser 2011). This legislation might support improvements in infrastructure, innovative agricultural programs, food subsidies, welfare policies, and so forth.

The next step in the scientific method involves developing measures to test the hypotheses. These measures ought to represent the outcome of interest, the factor(s) argued to cause the outcome, as well as any other factors that increase the likelihood of the outcome to occur. The aforementioned example of food insecurity requires measures of at least food insecurity and governance. It also begs for measures of other factors such as drought conditions and intrastate conflict, which may also be related to food insecurity, in order to ensure that any observed effect of governance on food insecurity is not a function of these other factors, but of governance.

Two potential quantitative measures of food insecurity are the average daily caloric intake and the average height and weight of individuals by gender and age. The former captures the extent to which individuals have sufficient access to food, but not whether the food is healthy, while the latter measures the outcome of a lack of access to healthy and safe food. Qualitative measures of food insecurity may include interview questions regarding how frequently heads of households are unable to purchase food due to a lack of money, or how often a person worries about not having adequate food to eat.

Governance may be measured in terms of the extent to which national, regional, and local elections are democratic. Qualitative measures of governance may include interview questions regarding: whether or not the poor vote and why not if they do not vote; the extent to which people believe that national leaders are doing enough to address the issue

of food insecurity in their constituencies; and the importance voters place on this issue when casting their ballots.

Drought conditions may be measured in terms of annual rainfall while intrastate conflict may be measured in terms of civil wars. For violence to disrupt aid flows and inhibit migration, the violence must be very intense as in the case of civil wars. Civil wars are distinguished from other forms of intrastate violence by, among other things, the number of battle deaths they involve. For violence within a state to constitute a civil war, typically, it must involve at least 1000 battle deaths.

The next step in the scientific method entails *collecting data* on these measures. In the case of the qualitative measures previously identified regarding food security, this process entails conducting the proposed interviews. In the case of the quantitative measures, this process involves nothing more than accessing numeric, publicly available data from governmental, intergovernmental, and academic institutions. The United Nations Food and Agricultural Organization (UNFAO) collects quantitative data on average caloric intake and the prevalence of underweight children.¹ Other UN-affiliated organizations and national environmental agencies provide data on rainfall.²

Academic institutions, meanwhile, are a valuable source of data on governance and civil wars. There are various sources of quantitative data on democracy at the national level, but not on democracy at the subnational level. These datasets include: the Polity Index,³ the Democracy-Dictatorship dataset (Cheibub et al. 2010), and the Polyarchy dataset.⁴ They provide data on the level of democracy in countries around the world as far back as 1800.

There are far fewer datasets available on civil wars. The best is the UCDP/PRIO Armed Conflict Dataset.⁵ It provides very high quality data on armed conflict defined as the use of armed force between two parties, one of which is the government, resulting in at least 25 battle-related deaths. It provides two additional measures, which allow researchers to identify conflicts that constitute civil wars. These measures provide data on the intensity of conflict in terms of 1000 battle-related deaths either total or per year.

The penultimate step in the scientific method involves *analyzing the data*. For the quantitative indicators, this would consist of an observational study analyzing the relationship between the aforementioned measures of governance and food security, as well as rainfall and civil wars. Observational studies are discussed in Chapter 20. For the qualitative indicators, this step would involve identifying and interpreting patterns in the interview responses.

The final step of the scientific method involves *confirming or disconfirming (i.e., falsifying) the hypotheses*. In the quantitative analysis of food insecurity, results in support of the governance hypothesis would demonstrate a correlation between higher levels of democracy at the national level and greater caloric intake and fewer underweight children. In the qualitative analysis, results in support of the governance hypothesis would indicate that there are fewer indications of people being unable to purchase food for lack of money and/or worrying about not having adequate food to eat, where people vote more often, place a lot of importance on food security issues, and believe that politicians have dedicated sufficient attention to issues regarding food for the poor.

Violations in the Scientific Method

Violations in the scientific method arise any time a subsequent step occurs prior to an antecedent step. Certain violations in the scientific method are more problematic and more common than others. A very common violation occurs when researchers, instead of first defining their measures and then collecting data to represent these measures, allow the availability of data to determine the hypotheses that they construct, and the measures that they employ to test their hypotheses.

In the above example regarding food insecurity, we would have violated the scientific method in this way had we first identified what quantitative data existed on governance, and then argued that food should be more secure in countries where national-level elections are democratic, ignoring the importance of regional and local elections because data on these elections does not exist.

This kind of violation in the scientific method generally results in a narrowing of hypotheses to fit the available data as in the prior example. This example was more limited because it omitted the importance of regional and local elections. Researchers might be tempted to define their hypotheses or measures in terms of the available data in order to avoid criticisms that their analysis is not a strong test of their argument, because the distance between their theory and data is large while avoiding the costly and time-intensive process of collecting original data for which this distance would not be as large.

A much more problematic violation of the scientific method occurs when researchers collect data, observe patterns in it, and then change their hypotheses to be consistent with the results that they find in their analyses. This is highly problematic because it prevents the analyses from serving as tests of the researchers' hypotheses. In this case, there is no way for the analyses to do anything other than confirm the researchers' hypotheses. Unfortunately, knowing whether violations in the scientific method of this kind have occurred is very difficult unless a researcher leaves a paper trail – that is, unless earlier versions of the research, including the research proposal, are available so that changes in how the findings have been reported over time can be observed.

How 'Scientific' are the Social Sciences?

Although social science research, like the natural sciences, uses the scientific method, questions still abound as to what extent patterns in human behavior are scientific. The social sciences are scientific to the extent that human behavior is *observable, consistent, predictable*, and, thus, *testable* using the scientific method.

Observability of Human Behavior

The first criterion on which the scientific nature of the social sciences is judged against is the observability of human behavior. To be observable means that human behavior is

capable of being observed, not that it has been observed. Many forms of human behavior and the motivations for them are observable. Wars, trade, investment patterns, elections, protests, coups d'état, and so forth, are all observable with the human eye.

Although researchers cannot personally observe certain human behaviors, including those that have occurred in the past, they can often observe them through others who have directly experienced them. To do so, researchers might interview witnesses to events or examine archival documents about accounts of them. Of course, many witnesses to events may be unwilling or unable to testify about them because of societal pressures, restrictions on civil liberties, and potential harm to themselves or their livelihoods, among other reasons. Witnesses may misconstrue events, either intentionally or unintentionally, as well.

When researchers cannot directly observe certain behaviors themselves or through others that have experienced them, researchers may still be able though to identify the observable implications of these behaviors. The latter are behaviors that one expects to observe (or not to observe) if certain behaviors have occurred. Emotional or physical distance, for example, and spending less time with a spouse are all observable implications of a marital affair. Testing for the observable implications of a behavior is not as convincing, of course, as observing a behavior directly since the observed behavior may be consistent with other behaviors. Emotional or physical distance and spending less time with a spouse, for example, are also consistent with general unhappiness in a marriage and wanting a divorce.

Electorate fraud offers another valuable example of this concept. It is very difficult to observe whether or not a political party has cheated in an election, but it is possible to observe if the turnout rate in certain districts has exceeded 100 percent. While it might seem unlikely that a party would cheat in such an obvious way, turnout exceeded 100 percent in several districts in the 2011 legislative elections in Russia, which sparked massive street protests, as well as the 2014 presidential election in Afghanistan. Although this was not the case in these elections, it is also possible for voter turnout to exceed 100 percent for reasons other than fraud, including computer error.

The behavior of the drugs cartels in Mexico further illustrates this concept. The Mexican drug cartels are known to threaten to kill local politicians if the politicians do not comply with the cartels' demands for money, government contracts, and so forth. Researchers cannot directly observe these threats, but they can observe the number of mayors that have been murdered while in office (an estimated 100 in the last decade). This number should be indicative of the minimum number of mayors that have been threatened by cartels, since those who were killed were likely those who refused to comply with the cartels' threats and were murdered as a result. While some of these mayors may have died for other reasons, most likely did not given the fact that the style of the murders was consistent with those of the cartels.

Consistency and Predictability of Human Behavior

Human behavior must also be predictable and consistent for the social sciences to be scientific. The former hinges on the latter. That is, for human behavior to be predictable, it must first of all be consistent. To be consistent means that people facing the same set of

circumstances, conditions, or options tend to behave in the same way each time they face them. It does not mean that everyone always behaves in the same way as each other when confronted with the same set of circumstances. Nor does it mean that the same person acts in the same way each time they are confronted with the same set of circumstances.

An important reason why individuals tend to behave the same way when faced with the same set of circumstances, conditions or options, is because individuals are generally rational. In layman's terms, rationality means that people behave according to logic and reason. In economics, rationality is defined more formally as the ability of a person to order his or her preferences over a set of choices and to always choose the option that maximizes his or her utility. Rationality presumes that people see the same choices as better than others given the same set of circumstances, conditions, or options, and tend to perceive the same course of action as the best to produce a certain outcome.

To continue with the example of food security, rational individuals when confronted with a lack of adequate, safe, and nutritious food, are likely to migrate to other areas where food shortages are less severe unless internal conflict or other factors restrict their movement. In the Horn of Africa drought of 2011, an estimated one million Somalis migrated to neighboring countries to escape the food crisis in their country. These migrants lived primarily outside the Al-Shabaab-controlled South, where fighting prohibited Somalis from fleeing. In 2017, another severe food crisis occurred in Somalia, and in nearby states, with about the same number of Somalis fleeing their country.

However, people do not always behave rationally, which poses a challenge to social science research, because they do not have the time, knowledge, and computational abilities to consider all the options available to them, and because of the ways in which issues are framed. Psychological research on charitable giving suggests that people's willingness to support food aid is higher when it is framed as either a purely altruistic act (Newman and Cain 2014), as an action that prevents a death as opposed to an act that saves a life (Chou and Murnighan 2013), or as an activity that is uncommon and infrequent (Sussman et al. 2015).

Human behavior can still be predictable, though, even if people are not always rational, as long as researchers can identify the conditions under which people are less likely to behave rationally, as in these examples. A potentially greater challenge than rationality to the consistency and predictability of human behavior is learning. People do not always behave in a consistent fashion because they learn from past experiences and change their behavior accordingly.

Corporations, for example, change their marketing strategies when one fails to attract new customers. Educators adopt new ways to teach students when old strategies fail to produce real changes in learning outcomes rather than simply improvements in test scores, while educational testing services continually change their exams to keep abreast of students who learn to game the questions with the help of businesses hired for this purpose.

Even policy-makers change their behaviors when past ones fail to produce their desired results. Until the United States adopted the Smoot-Hawley Tariff during the Great Depression, politicians in the US and elsewhere believed that tariffs helped protect and profit domestic industries. After the Act, however, free trade became economic mantra.

The Smoot-Hawley Tariff actually sunk the US's economy into a further depression because it provoked other countries to impose retaliatory tariffs on US goods (Irwin 2011).

The problem of learning is not unique to the social sciences. Even nature changes. Viruses, for example, adapt and change forms in response to medications. As a result, over time medicines that had previously worked to combat diseases are no longer useful, and researchers are compelled to develop new ones. The structure of the human brain also changes following severe trauma in order to prevent arguably future trauma (Hull 2002).

Learning, moreover, is not as problematic for social scientific research as it may at first appear. Learning does not always lead to changes in individual's behaviors. Knowing the cause of a phenomenon does not mean that actions can be taken to prevent the phenomenon from occurring in the future. Somalis were aware of the vulnerability of their country to food crises even before the 2011 food crisis, but with limited resources and a weak government, were unable to avoid the 2017 crisis.

Learning can also be incorporated into social science arguments. Many researchers have identified diamonds as a primary source of funding for civil wars in the late 1990s and early twenty-first century (Collier and Hoeffler 2002; Lujala et al. 2005). However, at the same time, they also recognize that due to increased social awareness and the development of the Kimberley Process their use in this regard has since declined (Bieri 2016). The Kimberley Process certifies mines and their products as conflict-free. Social scientists also have a bevy of methodological techniques that allow them to incorporate and account for learning in their empirical analyses.

Testability of Human Behavior

Human behavior is testable because it is observable. Social science research is arguably more scientific than the natural sciences in terms of being observable because it is possible for researchers to observe human behavior without the expensive high technology equipment needed to observe phenomena in the natural sciences. The Higgs Boson was theorized to exist in the early 1960s. Yet, it went unobserved for more than 40 years until a supercollider, costing billions of euros, was developed in 2012 powerful enough to detect the particle. Scientists did not actually even observe the Higgs Boson with this supercollider since the Higgs' lifetime is only $\sim 10^{-22}$ seconds. Instead, they detected the observable implications of the Higgs Boson, namely, the interactions of its decay products.

Social science arguments about human behavior are also testable because they are falsifiable, although ill-conceived social science arguments, such as tautologies, are not. Falsifiable means that an argument is capable of being proven false, not that it is false. Normative arguments about how people should behave, not how they actually do behave, are also not falsifiable and are not social scientific arguments for this reason. However, the premises on which certain normative arguments are built may be falsifiable.

A normative argument, for example, that governments should provide their people access to adequate, safe, and nutritious food because food security reduces intrastate

violence is an example of a normative argument for which the premises are falsifiable. This argument is based on a claim that food security reduces intrastate violence and this claim can be proven false. An argument, however, that governments should ensure that their citizens have access to adequate, safe, and nutritious food because food security is a human right is an example of a normative argument that is not falsifiable because this argument is based on values and rights.

How scientific researchers think social science research is, or can be, can influence what methodological approach and/or methods they choose to use in their research. A *method* is the specific process researchers use to collect and analyze information. In the social sciences, there are two basic methodological approaches – one qualitative and the other quantitative – as previously described, and a third approach, which combines the two, known as mixed methods research. The differences between these approaches, including their advantages and disadvantages, are discussed in Chapters 7 and 8. Each of these approaches consists of various methods. Qualitative research, for example, includes interviews, focus groups, participant observation, process tracing, the comparative method, and so forth. Quantitative research, meanwhile, includes content analysis, surveys, observational studies, and experiments. These methods are discussed in separate chapters in the remainder of the book.

Key Points

- Social science research seeks to understand human behavior.
- There are two different philosophical approaches to research. *Positivism* claims that an objective reality exists in the world independent of the observer. *Non-positivism* maintains that it does not.
- Positivist research uses the scientific method to analyze problems. The scientific method is a set of procedures to test hypotheses based on the collection and analysis of data through observation, interaction, or experimentation.
- The extent to which social science can be understood using the scientific method is debatable. Issues that inform this debate concern the extent to which human behavior is observable, consistent, predictable, and testable.

Further Reading

The first reading provides a comprehensive guide to the scientific method. The second describes interesting and entertaining examples of positivist research in the social sciences, and the third provides an introduction to non-positivist research methodologies.

- Carey, Stephen S. 2011. *A Beginner's Guide to Scientific Method*. Boston: Wadsworth.
- Levitt, Steven D. and Stephen J. Dubner. 2010. *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything*. New York: William Morrow.
- Yanow, Dvora and Peregrine Schwartz-Shea, eds. 2006. *Interpretation and Method: Empirical Research Methods and the Interpretive Turn*. Armonk, NY: M.E. Sharpe.

EXERCISE 1.1



To what extent do you believe in the positivist tradition that a world exists independent of observers, and that it is possible for researchers to conduct research without influencing the behavior of their subjects? Why? Can you identify examples or incidences when the latter is not the case, and do these examples mean that a world does not exist independent of the observer?

EXERCISE 1.2



The following behaviors and/or motivations for them are all difficult to directly observe. Identify one or two observable implications of these behaviors. Consider what other behaviors might also be consistent with the observable implications that you identify.

1. Bribery in order to obtain business licenses to operate in a foreign country.
2. Genocide defined as the *intention* to exterminate a group through acts of killings, wartime rape, the cutting off of groups' food supplies, and so forth.
3. The selling of mortgages by securities traders at higher rates than the mortgages are valued in order to deceive the purchaser.
4. Whether or not the explosion of a car bomb is an act of terrorism (i.e., the purposeful use or threat of violence against civilians or property in order to instill fear among the population for political goals), where the driver is killed in the explosion without having left a statement explaining the motivation for the act.
5. An authoritarian regime's investment in nuclear weapons in order to build domestic legitimacy.

EXERCISE 1.3



On a scale of 1–10, overall how scientific do you think your discipline is in terms of the ability of researchers in this discipline to observe and test consistent and predictable patterns in human behavior? On this scale, 1 represents 'not at all scientific' and 10 represents 'fully scientific'. Break down your assessment in terms of the following four criteria: *observable*, *consistent*, *predictable*, and *testable*. How do you think (and why) your discipline compares to other disciplines in the social sciences in terms of being scientific, and how do you think (and why) your discipline compares to the following natural sciences disciplines – biology and chemistry (or physics)?