1.1: How Do We Know What We Know?

Research Methods for Everyday Life

Do you like to know things? Do you ever wonder what other people know or how they know what they do? Have you ever made a decision, and do you plan to make decisions in the future? If you answered yes to any of these questions, then you will probably find the information in this book—particularly the information on research methods—very useful. If you answered no to all of them, I suspect that you will have reconsidered by the time you finish reading this text. Let’s begin by focusing on the information in this chapter. Here we’ll consider the variety of ways that we know things and what makes social scientific knowledge unique. We’ll also consider why any of this might matter to you and preview what’s to come in later chapters.

1.1 How Do We Know What We Know?

LEARNING OBJECTIVES

1. Define research methods.
2. Identify and describe the various ways of knowing presented in this section.
3. Understand the weaknesses of nonsystematic ways of knowing.
4. Define ontology and epistemology and explain the difference between the two.

If I told you that the world is flat, I’m hoping you would know that I’m wrong. But how do you know that I’m wrong? And why did people once believe that they knew that the world was flat? Presumably the shape of the earth did not change dramatically in the time that we went from “knowing” one thing about it to knowing the other; however, something certainly changed our minds. Understanding both what changed our minds (science) and how might tell us a lot about
what we know, what we think we know, and what we think we can know.

This book is dedicated to understanding exactly how it is that we know what we know. More specifically, we will examine the ways that sociologists come to know social facts. Our focus will be on one particular way of knowing: social scientific research methods. Research methods are a systematic process of inquiry applied to learn something about our social world. But before we take a closer look at research methods, let’s consider some of our other sources of knowledge.

**Different Sources of Knowledge**

What do you know about only children? Culturally, our stereotype of children without siblings is that they grow up to be rather spoiled and unpleasant. We might think that the social skills of only children will not be as well developed as those of people who were reared with siblings. However, sociological research shows that children who grow up without siblings are no worse off than their counterparts with siblings when it comes to developing good social skills (Bobbitt-Zeher & Downey, 2010).

Bobbitt-Zeher, D., & Downey, D. B. (2010). *Good for nothing? Number of siblings and friendship nominations among adolescents.* Presented at the 2010 Annual Meeting of the American Sociological Association, Atlanta, GA. Sociologists consider precisely these types of assumptions that we take for granted when applying research methods in their investigations. Sometimes we find that our assumptions are correct. Often as in this case, we learn that the thing that everyone seems to know to be true isn’t so true after all. The findings from the Bobbit-Zeher and Downey study were featured in a number of news articles in 2010. For one such example, see the following article:


Many people seem to know things without having a background in sociology. Of course, they may have been trained in other social science disciplines or in the natural sciences, or perhaps they read about findings from scientific research. However, there are ways we know things that don’t involve scientific research methods. Some people know things through experiences they’ve had, but they may not think about those experiences systematically; others believe they know things based on selective observation or overgeneralization; still others may assume that what they’ve always known to be true is true simply because they’ve always known it to be true. Let’s consider some of these alternative ways of knowing before focusing on sociology’s way of knowing.

Many of us know things simply because we’ve experienced them directly. For example, you would know that electric fences can be pretty dangerous and painful if you touched one while standing in a puddle of water. We all probably have times we can recall when we learned something because we experienced it. If you grew up in Minnesota, you would observe plenty of kids learn each winter that it really is true that one’s tongue will stick to metal if it’s very cold outside. Similarly, if you passed a police officer on a two-lane highway while driving 20 miles over the speed limit, you would probably learn that that’s a good way to earn a traffic ticket. So direct experience may get us accurate information but only if we’re lucky (or unlucky, as in the examples provided here). In each of these instances, the observation process isn’t really deliberate or formal. Instead, you would come to know what you believe to be true through informal observation. The problem with informal observation is that sometimes it is right, and sometimes it is wrong. And without any systematic process for observing or assessing the accuracy of our observations, we can never really be sure that our informal observations are accurate.

Suppose a friend of yours declared that “all men lie all the time” shortly after she’d learned that her boyfriend had told...
her a fib. The fact that one man happened to lie to her in one instance came to represent all experiences with all men. But do all men really lie all the time? Probably not. If you prompted your friend to think more broadly about her experiences with men, she would probably acknowledge that she knew many men who, to her knowledge, had never lied to her and that even her boyfriend didn’t generally make a habit of lying. This friend committed what social scientists refer to as **selective observation** by noticing only the pattern that she wanted to find at the time. If, on the other hand, your friend’s experience with her boyfriend had been her *only* experience with any man, then she would have been committing what social scientists refer to as **overgeneralization**, assuming that broad patterns exist based on very limited observations.

Another way that people claim to know what they know is by looking to what they’ve always known to be true. There’s an urban legend about a woman who for years used to cut both ends off of a ham before putting it in the oven (Mikkelson & Mikkelson, 2005). Mikkelson, B., & Mikkelson, D. P. (2005). Grandma’s cooking secret. Retrieved from http://www.snopes.com/weddings/newlywed/secret.asp She baked ham that way because that’s the way her mother did it, so clearly that was the way it was *supposed* to be done. Her mother was the authority, after all. After years of tossing cuts of perfectly good ham into the trash, however, she learned that the only reason her mother ever cut the ends off ham before cooking it was that she didn’t have a pan large enough to accommodate the ham without trimming it.

Without questioning what we think we know to be true, we may wind up believing things that are actually false. This is most likely to occur when an **authority** tells us that something is so (Adler & Clark, 2011). The definition for authority provided here comes from the following source: Adler, E. S., & Clark, R. (2011). *An invitation to social research: How it’s done*. Belmont, CA: Wadsworth. Our mothers aren’t the only possible authorities we might rely on as sources of knowledge. Other common authorities we might rely on in this way are the government, our schools and teachers, and our churches and ministers. Although it is understandable that someone might believe something to be true because someone he or she looks up to or respects has said it is so, this way of knowing differs from the sociological way of knowing, which is our focus in this text.

As a science, sociology relies on a systematic process of inquiry for gaining knowledge. That process, as noted earlier, is called research methods. We’ll discuss that process in more detail later in this chapter and throughout the text. For now, simply keep in mind that it is this source of knowledge on which sociologists rely most heavily.

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<th>Table 1.1 Several Different Ways of Knowing</th>
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<td><strong>Way of knowing</strong></td>
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In sum, there are many ways that people come to know what they know. These include informal observation, selective observation, overgeneralization, authority, and research methods. Table 1.1 "Several Different Ways of Knowing" summarizes each of the ways of knowing described here. Of course, some of these ways of knowing are more reliable than others. Being aware of our sources of knowledge helps us evaluate the trustworthiness of specific bits of knowledge we may hold.

### Ontology and Epistemology

Thinking about what you know and how you know what you know involves questions of ontology and epistemology. Perhaps you’ve heard these terms before in a philosophy class; however, they are relevant to the work of sociologists as well. As we sociologists begin to think about finding something out about our social world, we are probably starting from some understanding of what “is,” what can be known about what is, and what the best mechanism happens to be for learning about what is.

**Ontology** deals with the first part of these sorts of questions. It refers to one’s analytic philosophy of the nature of reality. In sociology, a researcher’s ontological position might shape the sorts of research questions he or she asks and how those questions are posed. Some sociologists take the position that reality is in the eye of the beholder and that our job is to understand others’ view of reality. Other sociologists feel that, while people may differ in their perception of reality, there is only one **true** reality. These sociologists are likely to aim to discover that true reality in their research rather than discovering a variety of realities.

Like ontology, **epistemology** has to do with knowledge. But rather than dealing with questions about what is, epistemology deals with questions of **how** we know what is. In sociology, there are a number of ways to uncover knowledge. We might interview people to understand public opinion about some topic, or perhaps we’ll observe them in their natural environment. We could avoid face-to-face interaction altogether by mailing people surveys for them to complete on their own or by reading what people have to say about their opinions in newspaper editorials. All these are ways that sociologists gain knowledge. Each method of data collection comes with its own set of epistemological assumptions about how to find things out. We’ll talk in more depth about these ways of knowing in Chapter 8 "Survey Research: A Quantitative Technique" through Chapter 12 "Other Methods of Data Collection and Analysis", our chapters on data collection.

**Key takeaways**

- There are several different ways that we know what we know, including informal observation, selective observation, overgeneralization, authority, and research methods.
- Research methods are a much more reliable source of knowledge than most of our other ways of knowing.
- A person’s ontological perspective shapes her or his beliefs about the nature of reality, or what “is.”

A person’s epistemological perspective shapes her or his beliefs about how we know what we know, and the best way(s) to uncover knowledge.

**Exercises**

1. Think about a time in the past when you made a bad decision (e.g., wore the wrong shoes for hiking, dated the wrong person, chose not to study for an exam, dyed your hair green). What caused you to make this decision?
How did any of the ways of knowing described previously contribute to your error-prone decision-making process? How might sociological research methods help you overcome the possibility of committing such errors in the future?

2. Feeling unclear about ontology, epistemology, what is, what we can know, and how we know what we can know? This video may help, or it may not. But it addresses some of these questions, and it’s hilarious. I highly recommend it: http://www.rocketboom.com/rb_08_jun_04/.