Introduction

The Basics of Research Design

Orientation

The first step to doing research is design. In order to do research well, we have to generate a research question, identify the assumptions that are grounded in our work, and then create a plan for collecting and analyzing data. This plan isn't only the specifics of what we plan to do and how we'll do it; it's also how we're defining our research question itself and the aspects of what we're studying. It's through the planning process that we clarify *what* we will study, *how* we will study it, and *why* it's important. This is the foundation of good, professional research. So let's get started as beginning researchers!

Ways of Knowing

People come to know things in many different ways. We learn in various kinds of environments—some more formal than others (e.g., in a classroom vs. from your grandmother)—and we also produce knowledge using different means. If you think about it, you can probably find examples of things you know that you learned or produced in different ways. You might know about a religious holiday—what happens during a service, what families do before and after, and so on—because you've participated in it year after year. You could know that you should buckle up when you're in the car because you were told this by your parents, you learned formally about seatbelt laws and traffic safety statistics in Driver Education classes, and you are reminded about safety through anecdotes you hear about car accidents and what happened to the passengers. Qualitative research is a way of *formally* establishing knowledge but allowing you to capture *folk or vernacular* cultural understandings and agreements. That is, as a researcher, you will draft a formal design to collect data, analyze the data, and

Chapter Learning Objectives

Students will be able to do the following:

1.1 Identify underlying assumptions and connect them to research methods

1.2 Identify how inductive and deductive research work together

1.3 Identify and justify dependent and independent variables

1.4 Understand operational definitions

1.5 Explain how to optimize levels of measurement and units of analysis in research

1.6 Explain the relationship of research projects, methods, and theories

1.7 Recognize common mistakes in ethnographic research

1.8 Explain the factors that lead researchers to select a particular research topic

report about the data. However, the data you will look at will include and encompass your participants' knowledge and ways of knowing. You are producing knowledge about others' knowledge!

The important thing that sets your research apart from journalism or a travelogue or an anecdote is that you start with a formal plan that integrates specific *theories* from your field or discipline, *methods* that collect and analyze data, and *plans for reporting* that present your data to an identified audience. So what do we mean by *methods*? You're probably sitting in a methods class right now (or trying to learn on your own about them). We actually mean three different things when we talk about **methods**:

1. **Epistemology**, or the study of how we know stuff. This involves the question "What do I think are valid ways of knowing?" This bridges theory with method, and it helps you select analytical frameworks (and in some cases, ways of collecting data).

2. **Strategic methods** (what most people initially think of when they hear the word *methods*). That is, specifically how will you collect or analyze data. This answers questions such as "Should I conduct a survey or do participant observation?" Strategic methods are selected in part based on your epistemology and in part for other reasons that we'll discuss in detail later, such as the amount of time you have.

3. **Techniques**, or the nitty-gritty details of how you choose to do what you choose to do. For example, if you choose to do interviews, you might ask, "How will I choose my informants?" Again, as with choosing strategic methods, sometimes you select techniques for reasons of design, and other times you select them based on expediency.

Methods The researcher's approach to collecting and analyzing data; this includes epistemology, strategic methods, and techniques.

Epistemology The study of how we know things.

Strategic methods How data are collected and/or analyzed.

Techniques The details of how a researcher chooses to do what they choose to do.

Everyone—and we mean *everyone*—has underlying assumptions that affect all three of these choices you'll make in methods. Underlying assumptions are working hypotheses and biases you have about the world that affect the way you perceive your surroundings and yourself, the way you would usually gather information and assess it, and the way you view your role as a researcher. Because we're social animals, we're hardwired to develop these assumptions, and they're usually related to our broader culture (our learned and shared behaviors and ideas). They allow us to function with relative ease and calm in the many social interactions we have every day, but they also can hamper our freedom of thought and open-mindedness as researchers. There is no way to entirely escape underlying assumptions, so they are built into even the *grand theories* (the famous, really big ideas about human life) in the social sciences.

Underlying assumptions that influence each of us and the grand theories include things such as these:

- *Constructivist view:* the idea that reality is constructed uniquely by each person (a more humanistic orientation)

- *Positivist view:* the idea that an external reality (outside of us) is waiting for us to discover it through our approximations of this real truth (the scientific method)

- *Rationalist view:* the idea that we know things because we can reason about them

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- *Empiricist view:* the idea that we know things because we have experiences of them (through our senses), and we are also always skeptical because we can never be sure of the truth (because our experience changes over time)

If you're in a field like anthropology, which has a lively and long-standing discussion about appropriate underlying assumptions, you might find a sometimes passionate (even argumentative) debate about whether the discipline is a science or part of the humanities. These two broad-based positions treat "truth" as different concepts—and therefore with different ways of studying and understanding it. Science is inherently empiricist and often positivist: science strives for objectivity (replicable studies that don't depend on the researcher's identity) and chases truths that are thought to be external to the individual researcher. Science, therefore, is very explicit in its methods and measurements, with the ideal that another researcher could replicate (do again, the same way, with the same results) a person's research design and that the findings are generalizable (the findings are broadly applicable across the population the researcher defines). Data are acquired through direct observation (whether in experimental design, such as chemistry, or observation alone, such as astronomy). Even though science isn't always experimental, it's always striving for objectivity (even if, arguably, it can't entirely reach this goal).

The humanities have a totally different way of understanding truth—and therefore a different way of trying to capture it. The truth is not an absolute but instead is decided by individual human judgments. Instead of trying to find generalizable truths, humanities scholars attempt to understand and articulate the web of meanings that humans create and live in. They argue that humans are unique in this way, so they have to be studied differently. Many social science disciplines, such as anthropology, live in an in-between space—part science, part humanities. In part, this has to do with the sorts of research questions that people have in such fields. An anthropologist might ask, "How did this particular group affect plant biodiversity through their plant collection methods over the last fifty years?" This question would lend itself more to a science-oriented epistemological framework. Another anthropologist might ask, "What is the meaning of this ritual that this particular group does before it goes to gather this particular plant?" That question is entirely different in its nature and lends itself more to a humanities-oriented epistemological framework. At the same time, both anthropologists may employ the same *strategic methods* and even *techniques*: In this case, both might decide to select a number of key informants (particularly knowledgeable people in a group) to interview and observe.

Beginning students often mistake *qualitative* for *quantitative* methods and data for the science versus humanities debate: They mix up letters (as opposed to numbers) to be about epistemology. But this is not what the science versus humanities debate is about at all. Science can use qualitative methods and data (such as an astronomer's description of an event), and humanities can use quantitative methods and data (such as a historian looking at census records to describe the populations of different ethnic groups in a nation over time). It is helpful if students can try to differentiate by asking these questions:

1. What is the research question? Is the research question better addressed through looking for an objective truth (that is replicable and generalizable) or looking for a variety of meanings people are making—or both?

2. What is the researcher's theoretical orientation? Is it more about finding out one answer or articulating a variety of viewpoints?

3. Does the research question need text-based information and assessments or numbers-based measurements (or both) to be answered?

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Deduction A way of conducting research that begins with selecting a theory, then creates hypotheses to test theory, and finally conducts research that generates observations to support or refute the hypotheses.
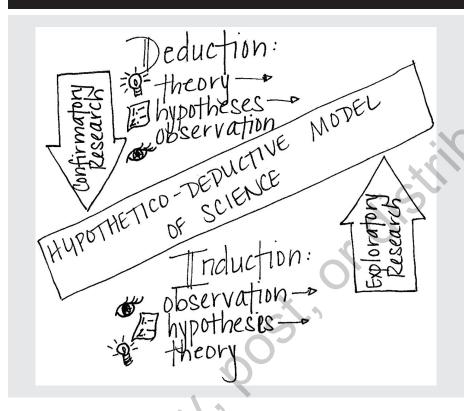
Induction A way of conducting research that begins with collecting data on a topic, then generates hypotheses based on the data, and finally uses hypotheses to build or discuss relevant theory.

Hypothetico-deductive model A two-stage process that combines inductive research (as the first exploratory stage) and deductive research (as the second confirmatory stage).

Exploratory research The stage of research that explores a research topic through collecting data and using those observations to (1) refine the research question and (2) select and build on relevant theory.

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Discussion

Think for a moment (and then jot down) what your underlying assumptions are in how you see the world. Do you find that you trust statistics and measurements more? Or stories and relationships? Do you tend to think there is one truth or answer, or do you think that the truth is always contested and arguable? Are you more apt to collect many different experiences and stories and think all of them are right for different reasons, or do you assess which ones are more reliable and in agreement (and see the rest as outliers)? Can you give one or more examples of how your underlying assumptions have been put to use in your life? (Bonus: Can you think of a time when your assumptions served you well and a time when they didn't?)

Research Stages

There are two basic ways in which research is conducted: deductive research and inductive research. **Deduction** happens when a researcher starts with a theory, creates hypotheses that test the theory, and then conducts research that generates observations that either support or refute the hypotheses (and therefore, by extension, the theory to a certain extent). **Induction** happens when a researcher starts with making observations (that is, collecting data), then generates ideas about what the data are saying (hypotheses), and from there, builds or discusses relevant theory. Many research projects, over the long term, use both of these approaches in the **hypothetico-deductive model**, which combines the two (see Figure 1.1).

How this works is by using a two-stage process:

1. Stage 1 is **exploratory research**: It explores a research question through collecting data and then figuring out from those observations what further refinements to the research question should occur in the future, as well as what theories the data speak to.

2. Stage 2 is **confirmatory research**: It takes what was learned in the exploratory stage and develops a research design that combines these findings with relevant theory to develop hypotheses that can be tested with further observation.

For example, let's use the example of one of the author's (Jan Mills's) doctoral dissertations. She was working on a doctorate in education while also professionally teaching

Figure 1.1 The Hypothetico-Deductive Model

first grade. She was interested in how, in her role as teacher, she could co-create a more functional learning environment for the whole group by helping develop students' individual capacities to self-regulate their behavioral choices. Further, she explored how these interactions between students and teacher linked back to later interactions and student outcomes. She conducted her doctoral dissertation using an exploratory approach, particularly using autoethnography as a method (observing and writing about one's own life experiences ethnographically). Through this, she developed hypotheses about an effective approach to classroom management with a large group of students demonstrating challenging behaviors, based on patterns in student–teacher interactions over time and behavioral outcomes in students. If she wanted, she could have followed up with a confirmatory study, perhaps combining interviews and classroom observations of other teachers with a widely distributed survey to understand their own senses of classroom management under similar conditions and how they reflect on their interactions with students.

Many research projects are carried out this way in the social sciences, and most thesis and dissertation projects that graduate students complete are exploratory research. Then, if students go on to academic careers, they often refine and expand on their initial

Confirmatory research The stage of research that develops a research design to further refine initial findings through developing hypotheses and ways to test them with further data collection and analysis.

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work through confirmatory research. When you think about research topics you might like to explore, keep in mind that you are likely to develop a design that follows an exploratory, inductive approach. This way, you won't feel too overwhelmed by the process. You should take the process of finding a topic seriously, because many students find that this can be developed into a suitable master's or undergraduate capstone thesis project—which often later informs a dissertation and even sets the stage for a person's later academic career. But at the same time, remember that you need to start with only a small piece of your larger interest and that researchers also can later change their focus to a certain extent. Don't feel locked in to a topic you pick at this early stage, but also take seriously the process of developing a project—it could lead to your future as a researcher!

Variables

There is a lot of jargon—or specialized language—social scientists use to talk about research. We'll cover some of the basics here. You'll want to begin trying to use these terms in your discussions with classmates, so that you become comfortable and familiar with them. **Variables** are aspects of a research question that can take on more than one value. Researchers define variables, look for relationships between them, and try to understand what causes them. Variables can be **unidimensional**, which means they have a single value for every case and are easy to measure, such as age, birth order, or height, or they can be multidimensional. **Multidimensional** variables have more than one aspect to them and multiple factors that lead to them—and can therefore have multiple values for every case, such as political orientation or household income. These are harder to define and measure. Is political orientation what someone self-identifies as? Or their voting record? Or how their beliefs and values about various topics stack up against official political stances of political parties? Is income considered only salary, or is it also inclusive of occasional side jobs, yard sales, and gifts? Some variables are very challenging to measure and also under debate as to how to define them, particularly because they are charged with emotion and political import: These include variables such as race and ethnicity, gender, sexual orientation, and relationship (formerly marital) status.

Variables can be all sorts of things, including both things we can observe and things we can only ask people about. They can include the following:

- Internal states (such as people's thoughts, feelings, worldviews, and meanings)

- Demographic characteristics (such as people's age, gender, and race/ethnicity)

- Behaviors (what we observe people doing)

- Artifacts (things that people use or make)

- Environments (both physical and social)

Many studies in the social sciences seek to understand the relationships between many of these variables at once. For example, one of the author's (Kimberly Kirner's) studies investigated the potential relationships between Pagans' beliefs, demographic

Variables Aspects of a research question that can take on more than one value.

Unidimensional A term describing a variable that has only a single value for each case.

Multidimensional A term describing a variable that has multiple aspects to it and factors that lead to it—and can therefore have multiple values for each case.

characteristics, spiritual practices, and household-level sustainable behaviors. In part, what we are often trying to figure out is which of these variables cause the others. That is, which are **independent variables** (those that exist on their own, unaffected by the others), and which are **dependent variables** (those that are affected by the independent variables)? What is the nature of their relationship? In the case of Pagans and their household-level sustainability, we can surmise that household-level sustainability is dependent on other factors, but which ones? Does it depend on how rural a person is? Their age? Their income? Does household-level sustainable behavior happen because a person believes in common Pagan values, such as the sacredness of nature, or are Pagan belief and household-level sustainable behavior unrelated variables (or do people who were already practicing sustainability become Pagans)?

Sometimes, it is relatively easy to figure out the relationship: For example, it is easy to figure out that longevity (lifespan) depends on socioeconomic class in the United States (more money in a capitalist health care system yields better care). Other times, it is hard to figure out which variables drive which. For example, in many parts of the world, poorer families have more children. Is this because they are attempting to generate economic security when they are old? Or is poverty leading to less access to contraception? Or both? Finally, establishing which variables are independent and dependent does not necessarily mean that one causes the other. We know, for example, that in the United States, women earn less than men in the same profession, but we also know that gender doesn't *cause* income. Rather, mediating factors around sexism (such as the expectation that women will do more household tasks, even if they are working, and prejudices against promoting women who are of childbearing age or who are mothers) are what drive gender-based income inequality. We have to take one step at a time and remember that establishing which variables are independent does not mean they are the cause of our dependent variables, and that even **correlation** (a statistically significant relationship between two variables) does not establish **causality** (which variables cause which, and how they do this).

Establishing causality can be really important, not only conceptually but also in practice. Many social programs assume, for example, that action is the dependent variable of thought. That is, if we change how people think, we can change how they act. However, the thought-causes-action model rarely works in practice. Usually, the independent variable causing both thought and action is infrastructural: It's economic or organizational. If we want to change people's behaviors, then, we have to change the systems around them that support the behavior we want. If we try to change only their minds but don't give them the support to change their actions, nothing will change. For example, teaching poor women how contraception can limit family size is generally insufficient for yielding the behavioral change of lower fertility rates. Instead, the broader social system that causes poor women to have high fertility—including norms that do not give bodily autonomy to women and a lack of economic opportunities for women—must change in order to support behavioral changes that lower fertility, such as abstaining from sex or using contraception.

Indicators are ways you plan to measure the variable. They are the general aspects of the variable you think are important. Indicators of household income, for example, are salaries, external support (such as alimony or child support), revenue from investments, side and cash jobs, and sales of household items (such as at yard or garage sales). Indicators are defined by **values**, which are the options that a participant can choose for

Independent variables Variables that exist on their own, unaffected by the others.

Dependent variables Variables that are affected by independent variables.

Correlation A statistically significant relationship between two variables, such that when one changes, the other is affected.

Causality A statistically significant relationship between two variables, in which one variable is the cause of another variable changing.

Indicators One or more measurements for a variable.

Values The specific options an indicator can take.

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answering a question about an indicator. For salary, this could include salary ranges (a set of options that the researcher defines, such as $0–20,000 per year), or the researcher could instead ask about the participant's salary in an open-ended fashion, allowing them to provide any numeric value. Variables, indicators, and values do not have to be quantitative in nature, nor do they have to conform to an exclusionary list. For example, a researcher studying cultural norms around first marriage might be curious about how the variable of maturity is tied into the social acceptability of the couple's marriage. In this case, indicators might include the couple's self-described internal states (such as self-control and perceived emotional stability), conflict resolution patterns (skills in resolving arguments and disagreements productively), and socially defined responsibility (such as caring for younger siblings, working at a full-time job, or building wealth). The values may emerge from the interview responses of participants from that culture, which would define the indicators in ways that are meaningful to the culture in question rather than to the researcher's own culture.

The process to define variables, indicators, and values can be deceptively simple: It is often more challenging than it first appears to set up the research design for success. Let's take, for example, gender (or sex) as the variable. Before you simply define it as male/female for your survey (the values you offer the participant as choices for self-identification), let's look closer at how you are setting up your design in measuring this variable. If you set up participants' options as male/female, you are already defining gender as a dichotomous (two-option) variable, rather than a spectrum of maleness to femaleness. You also haven't clearly established whether your indicators are genetics (XX vs. XY), physiology (the spectrum of physical characteristics that we think of as defining maleness or femaleness, such as breasts and facial hair), or culture (the spectrum of characteristics that we associate with masculinity or femininity, such as nurturance or assertiveness). Providing participants with only two options for gender ignores the variance that is present in a population, which might be expressed as intersex, transgender, androgynous, nonbinary, or gender-fluid, among other identities. Is capturing that variance of minority gender expression important? This may depend on your participant population and your research question. You always need to ask yourself, "How am I defining my variable and its potential values by the way I set up my indicators? Am I limiting what my participants can express? Is it a good idea to do that?"

Discussion

Let's say you're going to do a research project on campus that seeks to understand the unique challenges that students who are also parents face and the strategies that they use to be successful. What kinds of variables would you consider important to study? What indicators would you use to measure these variables? What values would define the indicators? After you've mapped out a few variables (and their indicators and values), find a small group of fellow students and discuss. What did you all agree on? What did others contribute that you hadn't considered?

Operational Definitions

In research, we often talk about *defining* variables and their measurements. How is this sort of defining different from using the *Merriam-Webster's* dictionary? Our usual way of talking about definitions—that is, how something is defined in the dictionary—is what we call **conceptual definitions**. Conceptual definitions are abstractions that facilitate understanding. They're generally agreed-on meanings of words. In research, we mostly talk about **operational definitions**. Sometimes, we say this as a verb: that we must *operationalize* something. What do we mean by this? Unlike a conceptual definition, which is abstract, an operational definition provides specific instructions about how to measure a variable. The variable usually already has one or more conceptual definitions, but we still have to explain how we will measure the abstractions for the purposes of our research.

Let's get back to the example of gender. We have commonly agreed on conceptual definitions of what *gender* means. We know it has something to do with femaleness and maleness. But when we seek to measure gender in our participants, that abstract conceptual definition doesn't work well enough for us to start. We still have to figure out how we're going to actually measure maleness and femaleness. Even if we based this on self-identification (the participant telling us what gender they identify as), we will shape their response based on how we ask the question and how we offer the responses (if we don't ask the question in an open-ended way). Consider the following ways of operationalizing gender differently and how you might respond (or how the researcher would assess you):

- What is your gender? Check *male* or *female*.

- On a scale of 1 (least) to 10 (most), how much do you feel you belong in the gender category of male? Of female?

- Do you feel that you are only one gender, more than one gender, or no gender at all? Why?

- Following is a list of traits that are traditionally associated with a specific gender. Please check all that apply, which will help us assess how strongly you are identified with masculinity and femininity: (1) aggressive, (2) warm, (3) analytical. . . .

As you can see, you could ask participants about their gender in many different ways, and each of those ways of operationalizing gender would not only shape the data you receive but also speak to certain theories about gender itself: whether or not it is about the body (as opposed to social roles or internal states); whether gender is two categories, more than two categories, or a spectrum; and how much gender is a category assigned by others versus an identity that is claimed by an individual. You can imagine that if it is this difficult to operationalize a variable for which we have strong shared conceptual definitions, it can be much more challenging to operationalize concepts that are less clear: power, for example, or alienation from place.

However difficult it may be, we have to try to create operational definitions as part of our research design. There are rarely objective definitions of anything. Instead, what we are seeking is a definition for a particular study, in a particular context. Keeping this
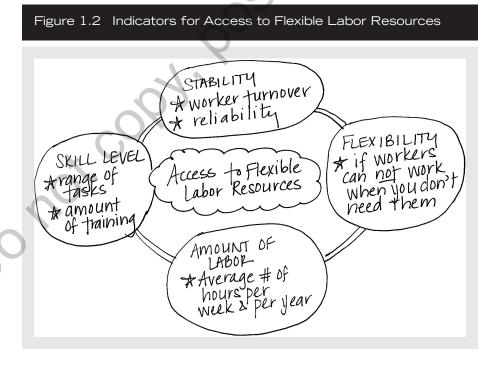
Conceptual definitions Abstractions that facilitate understanding.

Operational definitions Definitions that provide specific instructions for how to measure variables.

in mind can help us face the daunting task of defining variables in our study—remembering that it is for our purposes and need not work in every case. It also helps to remember that we can break complex variables into simpler variables. Socioeconomic status (SES), for example, is a complex variable that includes many simpler variables, such as income, household size, consumption patterns, occupation, self-assessment, educational achievement, social networks, and job stability.

Operational definitions help us move from question and hypothesis to data collection and analysis. We can think of them as the bridge between our research question and hypotheses and our ability to explore and test them. In a study designed by one of the authors (Kimberly Kirner), one of the hypotheses was this: *The greater the household's access to flexible labor resources, the higher the environmental health of the ranch.* The first step is to break hypothetical statements into their variables, so that each can be defined:

- Household access to flexible labor resources (Variable 1)

- Environmental health (Variable 2)

- Ranch (Variable 3)

If we try operationalizing just one variable—for example, Variable 1 (access to flexible labor resources)—we find a number of different indicators that measure such access to resources (see Figure 1.2).

Figure 1.2   Indicators for Access to Flexible Labor Resources

If we are careful in operationalizing each variable, developing the most appropriate indicators that will produce meaningful values, we go a long way toward designing a project that works: one where the data to collect are clearly described and there are clear indicators that measure variables in meaningful and relevant ways, so that we can trust our findings.

Discussion

Consider the term *working student*. Let's say you're doing a survey of your fellow students and you want to establish how many of them are working students and how this affects their study habits. But first, you need to operationalize what a working student is! Write a hypothesis, based on your own experiences or the conversations you've had with other students in the past, about how you think working student status relates to study habits. Then, operationalize *working student*—determining the measurements that would establish, for your participants, whether you consider them to be in this category or not.

Levels of Measurement and Units of Analysis

We can measure variables in various ways, and we can generally categorize these ways into levels of measurement—from more categorical to more numerically exacting. A general rule is that you should *always use the highest level of measurement possible* for a variable. This makes sense, right? The more precise you can be in measuring a variable, the better you will understand it when you analyze the relationships between variables. There are four levels of measurement: nominal, ordinal, interval, and ratio (see Figure 1.3).

It is very common in qualitative research to mostly use nominal and ordinal levels of measurement, because these are best suited to measuring concepts—and that is much of what qualitative research is oriented to do. Interval and ratio data can often augment, though, whenever you can see that a variable could be measured using concrete observations.

Aside from levels of measurement, there are also units of analysis. These describe how big your unit of study is. Most student projects (and most exploratory projects, no matter who the researcher is) are **case studies**: smaller, local projects that have limitations on how generalizable they are (how much they can definitively speak for multiple locations) but that are deep and rich in their description of the people, problem, or place that is studied. They can be contrasted with larger studies that test hypotheses, often by comparing across local, regional, or even global study groups or areas.

Units of analysis are not always defined by the number of individual persons: One unit is not always one person. Sometimes, a unit of analysis is a geographically or ecologically defined space, such as a watershed or a city. A unit of analysis might be a social

Case studies Small projects that have limited generalizability but offer significant preliminary or localized findings.

Figure 1.3 Levels of Measurement

Level of Measurement	Definition	Example
Nominal	An exhaustive list of names; participants select one or more to describe themselves (remember that mutual exclusivity, the ability to pick only one thing, tends to make participants annoyed!)	*Religious affiliation:* Buddhist Christian, Catholic Christian, Protestant Hindu Jewish Muslim None, Atheist None, spiritual but not religious Other (please specify)
Ordinal	Rank-ordered categories, where there is a relationship between the categories	*How much do you agree with the statement?* Strongly disagree Disagree Agree Strongly agree No opinion
Interval	The distance between rank-ordered categories is meaningful—partially quantitative. The distance between the categories is assumed to be equal, which quantifies the spectrum.	*Kinsey scale for sexual orientation:* 0 Exclusively heterosexual 1 Mostly heterosexual, only incidentally homosexual 2 Mostly heterosexual, but more than incidentally homosexual 3 Equally heterosexual and homosexual 4 Mostly homosexual, but more than incidentally heterosexual 5 Mostly homosexual, only incidentally heterosexual 6 Exclusively homosexual
Ratio	Measurements that are intervals with a true zero point that represents the absence of a phenomenon	*Number of times you've moved in your life:* 0, 1, 2, 3, 4 (If you've moved four times, you've literally moved twice as many times as a person who has moved only twice.) *Other examples:* age, income, number of births

organization, such as a household or a corporation. Or it could even be an event, such as a famine or a war. The general rule for selecting a unit of analysis is *always collect data on the lowest level of analysis possible*. It is relatively easy to **aggregate** data (to combine it across multiple units) later, but not the other way around! For example, if I'm curious about gender roles in a particular community, it is best if I keep my unit of analysis at both the individual (for ideas and identities) and household (for interactions and tasks) levels. I can always aggregate across extended families, or neighborhoods, or social networks. But if I start with keeping track of data at the extended family level, for example, I might miss ways key variables such as age or marital status (or household) play into the interactions I am recording.

The Relationship of Projects, Method, and Theory

So let's get back to the question of how method and theory relate to each other. We started talking about this at the beginning of this chapter, and then we entered some of the nitty-gritty details of how researchers talk about the components of their research (and define them at the start of projects). Let's now return to the lofty discussion of how a research project contributes to social science theory—and how that theory informs your research! You'll hear many social scientists talk about paradigms. **Paradigms** are theoretical perspectives, or what we might call *grand theory*. These are broad ways of looking at the world, what anthropologists often call *worldview* or *cosmology* (the nature of the universe and our place in it), but applied specifically to Western science. A paradigm defines the major issues with which a theorist (and researcher) is concerned. Let's take a look at a few examples:

- *Evolutionary theory:* The world is about biology and change in a species over time. How might this be applied to diverse topics? A psychologist might seek to explain certain emotions, such as fear, and their outcomes through a framework that describes how humans evolved this emotion, why it affects us the way it does, its utility, and its disadvantages in contemporary society. A medical anthropologist might conduct a study that investigates human cravings for fat and sugar and relate this to our nutritional needs under the long period when we were hunter-gatherers, describing the social environment as having shifted in ways that are in conflict with our biological drives for nourishment.

- *Idealism/cultural theory:* The world is about what people think (this paradigm underlies structuralism and functionalism). Let's get back to our topics and see how this might influence such studies differently. A psychologist working from an idealist or cultural paradigm might seek to investigate how fear is differently conceptualized by various cultural groups and how this mediates outcomes in behavior from people who feel fear. A medical anthropologist might explain the global trend to eat fatty, sugary foods based on the way people around the world have come to associate them with high status or comfort and convenience.

Aggregate To combine the data from multiple units.

Paradigms Theoretical perspectives that provide broad ways of looking at the world and define the major issues with which the researcher is concerned.

- *Materialist theory:* The world is about people's positioning for resources (this paradigm underlies cultural ecology and Marxism). Let's return once more to our topics to see how such a paradigm might influence our researchers' studies. A psychologist might investigate how fear is related to social environment, especially how the person views themselves in relationship to others' power or capacity for force, leading some people to be chronically fearful due to marginalization. A medical anthropologist might choose to study the phenomenon of food deserts, areas within urban and suburban regions that lack healthy food options (grocery stores, farmers markets)—usually because the residents are low-income.

Hopefully, you can see that there is rarely a "right" paradigm to study a particular topic or research question. Questions such as "Why are people afraid, and what can we do to ameliorate negative outcomes, such as violence when people feel fear?" or "Why are people all over the world increasingly eating fatty and sugary foods and suffering poor health effects from it?" have multiple answers, because they are complex. Researchers operating from different paradigms can each contribute a piece of the puzzle.

While there are sometimes "best" paradigms for a research question (and, more frequently, poorly fitted paradigms), it is also frequently the case that we can learn a lot from a variety of paradigmatic orientations. There is room for all sorts of researchers, aligned with a variety of grand theories, to contribute meaningful findings to our quest to answer compelling questions about human life. As a beginning student, it is best if you identify only one or, at most, two paradigms that you feel speak to your research question and your own interest and theoretical orientation. Keeping your design simpler doesn't mean you won't contribute meaningful findings, but it means that you'll give yourself a stepping stone toward more complex projects and set yourself up for success. You don't want to overwhelm yourself right at the start. If you haven't had a course in social science theory, or you haven't had one in a long time, you might want to learn some basics to select a paradigm that is meaningful to you. At the end of the chapter, there is a list of books that cover social science or anthropological theory at a beginning level.

Discussion

Think about paradigms you've learned about in your social science classes. Which ones speak to you most, and why? Do you think those paradigms are more aligned with your identity or values? More useful for the kinds of applications you care about? More interesting as an area of study? Then, find a small group of fellow students and discuss. Listen to the variety of paradigmatic orientations in a nonjudgmental way, and then think about what each of you can learn from the paradigms that you would not select yourself.

Paradigms are related to what we like to call the *BIG questions*, the questions that social scientists (and philosophers, theologians, and so on) have been trying to answer for hundreds of years (and that may never be fully answered). We can think of these as questions that are broadly interesting and grand (BIG). We can consider these BIG questions and paradigms as the very highest, broadest level of doing social science—where we contemplate some of the driving questions of human life while considering all the studies we've read about (plus our own that we've conducted). These questions tend to be held in common across the social sciences (broadly interesting), and they're extremely ambitious as questions for researchers to tackle (grand). Popular BIG questions include the following:
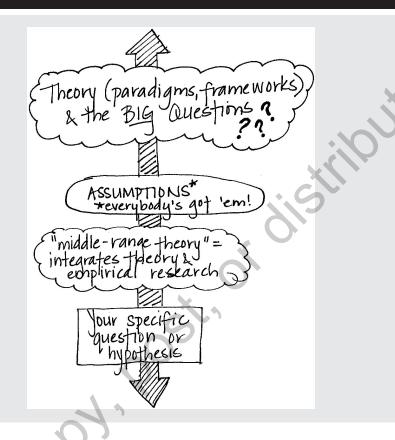
- Nature versus nurture (what makes you *you*)

- Evolution (how species, organizations, and societies change over time)

- Internal versus external (the way behavior is influenced by values and environment; real vs. ideal culture—or the gap between what people do and what they say they [should] do)

- Social facts (the emergent properties problem—how social forces both emerge from and transcend individual interactions)

At the other end of the research process is your specific question or hypothesis driving your research project. This is likely to be a small, focused question (so that you don't go crazy trying to sort out the biggest questions of all time in a limited time frame, with a small group of people!). In between is what researchers call *middle-range theory*, which integrates theory and empirical research (see Figure 1.4). These BIG questions and paradigms are integrated with those pesky underlying assumptions we discussed at the beginning of the chapter, which then also affect middle-range theory. (Remember, all theory is affected by underlying assumptions!)

Middle-range theory is where the proverbial rubber meets the road, because it guides how grand theory (or paradigms) are actualized in empirical research (where you, the researcher, will go out into the world and collect some data). Middle-range theory is more easily applied to contemporary problems for the purposes of explanation or prediction, and it usually shapes the methods you will use (and is, in turn, shaped by those methods). For example:

- *Optimal foraging theory (evolutionary anthropology):* articulates methods and ideas around why people select resources the way they do from an evolutionary perspective of efficiency

- *Cultural model theory (idealism; ethnoscience + functionalism):* articulates methods and ideas around how people come to have shared but variant idea structures that shape their interpretations of others' actions and aid their decisions about their own actions

- *Political ecology (materialism; Marxism + cultural ecology):* articulates methods and ideas around how differences in power and class affect the ways in which people interact with their physical environments

Figure 1.4 The Relationship of Paradigms to Research Questions

Even though we (especially as students) might primarily work with middle-range theory, which might look like it is focused and logically tied to specific methods, we always have to remember that the assumptions and the goals of grand theory (paradigms) are at work behind the scenes.

Why does theory ultimately matter when we're doing social science research? It matters because it informs the policies and programs societies create to try to get people to change behavior in positive ways. If we want people to do any number of behaviors that might benefit society, such as recycle, wash their hands, or educate their children of all genders, we have to use ideas (theories) about why people do (or do not) select these actions to begin with. Theory informs our basic assumptions that we use to conceptualize social problems, methods to understand them, and potential solutions.

What you'll notice is that the scale of research changes as you move from specific question to paradigm. Almost all student work, and most professional researchers' work (in both academic and applied fields), resides in the smallest scale of research: in specific,

focused research questions answered with data from specific, focused places and populations. Most of what social scientists produce are *case studies* (in cultural anthropology, **ethnography**). Fewer social scientists, usually later in their careers, generalize across cases (drawn from their own studies and those of other social scientists), producing what anthropologists call **ethnology**—general theoretical discussions that seek to account for human behavior across many cultural groups and geographic locations. From these, grand theory or paradigms are influenced over time.

Most of the time, researchers don't realize the BIG questions we are chasing until we are mid- or late-career professionals. But thinking about this early, from the time you begin trying out your identity as a researcher, can help you focus on what is meaningful to you. This means you'll have a more integrated career, starting with your earliest research experiences—building research projects that fit together into one or more research programs (longer-term, broader foci of your research career) that link to BIG questions that make you intellectually satisfied.

Discussion

Contemplate the four BIG questions offered earlier (or you might generate one of your own from past classes). Remember, to be a BIG question, it should be broadly interesting and grand. Which of these questions appeals to you? Is there one that you think you'd be curious about for a decade—or two or three—as a professional researcher? Why?
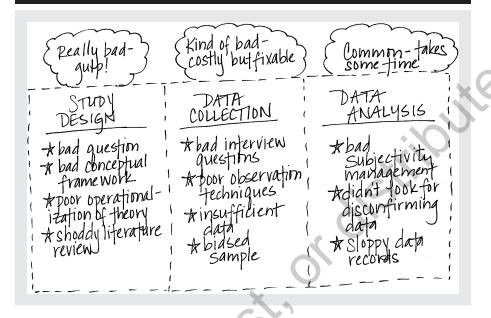
Making Mistakes

All researchers make mistakes, because we're human. It's OK to make mistakes. You'll make lots of them as you practice research design, data collection, and analysis. The main thing is to be mindful of the way you're working through each step of the research process, noting successes and failures, and using these observations to strengthen your capacity as a researcher. The other big concern is to address ethical issues that arise throughout the project, which is the subject of the next chapter.

There are three major sorts of mistakes (aside from ethical ones) that researchers make during the research process: study design, data collection, and data analysis (see Figure 1.5). Of these, mistakes in the study design are most problematic to recover from. This is because mistakes of this nature are embedded in every stage of research that comes after, which causes fundamental problems in the way you collect and analyze data. In such cases, there is really only one solution: to start over. This is why research design and planning are so important and are at the foundation of both this textbook and your research project. Good design is imperative; it ripples throughout your entire project.

Ethnography Writing about a specific culture at a specific place and time.

Ethnology General theoretical discussions that seek to account for human behavior across many cultural groups and geographic locations.

Figure 1.5 Three Sorts of Mistakes

Really bad— gurp!

Kind of bad— costly but fixable

Common—takes some time

STUDY DESIGN
* bad question
* bad conceptual framework
* poor operationalization of theory
* shoddy literature review

DATA COLLECTION
* bad interview questions
* poor observation techniques
* insufficient data
* biased sample

DATA ANALYSIS
* bad subjectivity management
* didn't look for disconfirming data
* sloppy data records

Mistakes in data collection are problematic, in that you may have to substantially change your methods (techniques) and extend your time and cost to complete data collection. However, if your original design (the relationship between your research question, theory, and method) is solid and intact, problems in technique are not catastrophic—just costly. Mistakes in data analysis, on the other hand, are very common. It is not unusual to find that you've analyzed your data less thoroughly than is ideal. Sometimes you realize this as you begin to work on your conclusions, and sometimes a colleague, supervisor, or reviewer will point out flaws in your analysis and conclusions that prompt you to reconsider. It is normal to take a bit of extra time, either before submitting your findings to a supervisor or reviewer or after they note some weaknesses, to refine your data analysis and conclusions.

As you review your findings and conclusions, you should keep in mind two concepts that describe the extent to which research is accurate. The first of these is **validity**, which determines whether research measures what it is claiming to measure and whether research truly examines what it claims to examine. For example, if your interpretation of your data claims to accurately describe the culture associated with an occupation, such as construction workers, but you didn't investigate whether those cultural trends are related more to socioeconomic class or blue-collar (trades and manual labor) versus white-collar (office and administrative labor) patterns, then your interpretation may not be valid. Validity is threatened by a number of specific problems that you should watch for in your research:

Validity The determination of whether research measures what it is claiming to measure.

• Premature conclusions (drawing your conclusions too soon, without sufficient data or analysis)

- Omission of disconfirming data (ignoring data contrary to what you expect or want to find)

- Not analyzing everything (ignoring certain data or avoiding clearly related topics)

- Not having data to support your interpretations (using very few data to support your conclusions)

The other concept, **reliability**, means that the study results are consistent over time and reasonably complete representations of the population at hand. Reliability generally means that the research study is **replicable**: that similar results should appear in similar settings when the study is repeated. There are some caveats to the concept of replicability in qualitative research. Most notable of these is that (1) studies of specific events (such as wars or famines) may not be replicable, as these are time-limited and often rather localized (i.e., they do not necessarily have a similar setting), and (2) in qualitative research, the individual researcher's attributes may substantially affect the results. That is, a female researcher may be treated differently by the study participants than a male researcher would be, or an older researcher may be treated differently than a younger one would be. You'll learn more about these effects in later chapters, but it is good to be aware of their impact on ethnographic research, which differs in this regard from experimental or statistical/quantitative research models. Reliability is threatened by other specific problems that you should watch for:

- Inattention to detail (you fail to pay close attention through observation or to pay close attention to nuances in the data, which means your representation of the population has substantial missing pieces)

- Poor recording of the process (you take incomplete notes and/or do not adequately track your analysis strategies)

- Fuzzy procedures (your methods were poorly defined and planned, so you inconsistently collect and/or analyze data)

- Failure to be clear (your written documentation of your methods, data, population, and analysis were not clear, so other researchers—or you in the future—can't adequately do the same thing)

In quantitative (statistical) and experimental studies, the ideal is often a combination of replicability and **generalizability**—how applicable a study's findings are to predicting human behavior or interpreting it in meaningful ways elsewhere. A study might be replicable, generalizable, both, or neither. Like replicability, generalizability is tricky for ethnographic studies. It is important to be attentive to whether or not you think your participants and study site represent the broader culture or population you are studying as a whole. However, even if your study site and participants produce findings that are not broadly generalizable, this does not mean your study is without merit. Culture varies a great deal from place to place, and even from person to person. Many smaller-scale, localized studies are still important for understanding humans.

There are three ways you can boost your validity and reliability: reciprocal ethnography, an audit trail, and triangulation. **Reciprocal ethnography** is a methodological process in which you ask your participants to check your validity. You can provide your

Reliability The determination of whether study results are consistent over time and reasonably complete representations of the population at hand.

Replicable The condition that similar results should appear in similar settings when the study is repeated.

Generalizability How broadly applicable a study's findings are to interpreting or predicting human behavior elsewhere (aside from the study site and participants).

Reciprocal ethnography A methodological process in which the researcher collaborates with research participants to review the findings and address conflicts between the researcher's interpretations and those of their participants.

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participants with your preliminary findings and ask them to help you identify anywhere you have misinterpreted them. This doesn't mean that you negate your own analyses if the participants disagree, but rather that you use this uncomfortable critical review to work on dealing with the conflicts between their perspectives and your perspective and carefully assess whether your analysis is meaningful and why it is so. This means you can discuss social theory and your ideas with the participants, opening anthropology up as a collaborative endeavor! This process not only helps you refine your findings and clarify the assumptions that went into them but also forges more egalitarian and collaborative relationships with your participants. It's tricky, and not always comfortable, but it can have meaningful effects on your conclusions and your field relationships.

An **audit trail**, unlike reciprocal ethnography, is a methodological strategy that every researcher should use. That is, it isn't tied to any theoretical or ethical orientation but is rather a standard practice for all researchers. An audit trail is a record of your procedures and thoughts. It helps you figure out, especially if you run into mistakes, how you got from point A (the data) to point Z (your interpretation and conclusions). This allows you to carefully backtrack if you find that your conclusions are not valid or reliable. The audit trail should include two types of information: *where* you got your ideas from (data, notes, and peer-reviewed research literature) and *why* you made the decisions you did (your personal notes, journaled in analytical memos alongside data, drafts of your paper, and annotations, which are your thoughts on how you'll use peer-reviewed literature). Finally, researchers can improve validity and reliability by using **triangulation**, which is a search for agreement among multiple, different sources of information. Triangulation will be discussed at length in a later chapter when we cover combining qualitative and quantitative methods. For now, it is enough to know that triangulation is one strategy to improve validity and reliability, and it can happen through using multiple methods, researchers, or disciplinary perspectives and/or checking one's data and interpretations against similar studies.

Discussion

Try to critically assess your personality and the ways you usually approach assignments and tasks. Where are your weaknesses? How do they overlap with the problems related to validity and reliability? How could you improve these weak areas to become a better researcher?

Audit trail A record of the researcher's procedures and thoughts while conducting research.

Triangulation The search for agreement among multiple, different sources of information.

Finding a Topic

The starting point to building yourself as a researcher is to identify a topic (and later one or more research questions) that piques your interest. Also of concern, especially as a student, is that you select a topic that you can actually study—that isn't too far away, expensive, or challenging to do. The way research begins is through planning—through drafting a design. There is an ideal way to design and execute research:

1. Think of a theoretical problem

2. Select an appropriate site and method(s)

3. Collect and analyze data

4. Challenge or support the theoretical proposition that informed your problem

However, there are lots of reasons why this general process gets derailed or altered. A researcher may notice that there is substantial funding and interest available for a research problem that wasn't originally on their radar but is tangential to (and partially answers) questions that they had. The researcher might select a site that is optimal to answer her question but find it problematic logistically: It might be too difficult to get to in the time she has, or be in political upheaval and therefore not allowed by her institution's risk management, or be too financially expensive as a field site. It is very common that researchers select a particular method, only to find during data collection that they can't get enough participants for using that method—necessitating that they get creative about which methods might be easier for drawing in participants. Similarly, it's common for a researcher to end up collecting data on a topic that he didn't really want to explore, because that's what his informants want to talk about. Finally, researchers frequently find that when they analyze their data, there are interesting results in areas of study that they did not anticipate or plan to discuss. All these challenges are part of the way real research is conducted.

As students, it is easy to at first feel frustrated and disappointed in your ability to stick to your design. Try to remember that you'll get better at both design and execution of research over time—more realistic about what will probably happen (and what you can accomplish) and also better at accomplishing it! Yet you'll always find challenges as you begin research projects, because social scientists work with people, so we'll always have an element of the unknown (and the chaotic) to our research. This is OK. You'll adjust over time to this challenge and become more comfortable with adjusting your research to meet the demands of the field. For now, take heart when you feel lost, annoyed, or unhappy with your process and results. We all go through this, multiple times, and it's part of the learning curve in conducting social science research. Stick with it!

So how to select a topic? Start with your interests (both intellectually and personally—more on this in a moment), but also try not to be too much of an optimist about your resources. Acknowledge that, as a student, your resources are pretty slim. This means you need to think in a very realistic (even pessimistic) manner about your available time, money, and contacts (social network). The goal of an undergraduate or master's-level thesis (even a dissertation) is to finish. Always remember that. Yes, you want it to be meaningful and interesting. But most of all, you want to finish your degree, and you want to finish it efficiently—as quickly (and cheaply) as you can. If you select a topic that is too challenging—that requires too long a period of fieldwork, too much data, or a location that is too difficult for you to reliably get to— you'll get stuck in your project, and it will impede your ability to finish your degree. So you want to start with not only ideas of what interests you but also a list of your limitations.

Discussion

While you might plan to pursue fellowships or small grants to help with your thesis research, these are never guaranteed to arrive—and, indeed, they are rather competitive. You'll want a list of your limitations for what you think you could do without any major influx of resources from somewhere else. Make a brief list of the following: how much money you think you could afford to put toward your research (out of your own pocket or from your family, if they will pitch in), how much time you think you'll have to do your project (most undergraduate and master's theses are based on about three to six months of fieldwork), and contacts you have or think you can make in communities of interest to you.

Now, you need to think about two things: topics that interest you and topics that have a purpose. While you should feel interested in your research topic, it is equally important (if not more so) that your topic has a clearly defined purpose and is meaningful to others—other academics, the public, or both. Remember, people don't exist for you to study them. You exist to serve people through your studies of them. Both participants in your research and organizations that fund research care that your research will contribute to the advancement of method and/or theory and that somehow it will have broader impacts (as the National Science Foundation puts it) for the public at large. Even if you self-fund your research, this is not like taking a trip for pleasure. You're expecting other people—your participants—to donate considerable amounts of time and even discomfort to your research project. Honor their time and assistance by making sure your research has a purpose: that it has clearly defined research questions and is articulated meaningfully with theory and application or advancing the voices of those you are studying. Keep in mind how you'd feel if a stranger knocked on your door and asked if they could hang out with you for a few months, ask you nosy questions, and generally be in the way of your life. This is what you're asking your participants to do, so it is important to have clearly defined descriptions of why they should do it!

While you need to find a topic that speaks to more than your personal interests, your interests are also your own. One of the joys of qualitative research is that it often allows the researcher to work by themselves on topics that are of intense interest to them. While qualitative researchers often make up part of a larger research team on large-scale research projects, they're also able to relatively easily (and cheaply) conduct small-scale research projects that speak to their personal interests. You don't have to justify your interests (so long as your research also serves a purpose, as we discussed previously), but you do need self-awareness. You might not know, right at the start, what your research interests would be. You should conduct a self-inventory to help you think about topics, field sites, and populations or groups that would make you happy in your work as a researcher.

Discussion

Take a self-inventory to help you think about and assess potential research topics. What are you passionate about? What fascinates you? What do you like doing (in terms of tasks)? Where do you like to be (indoors, outdoors, a particular type of environment)? What kinds of people are enjoyable or interesting to hang out with?

Pairing the Textbook and Workbook

As you begin to shape your research topic and question(s) using the culminating activity in the workbook for Chapter 1 (Activity 1.7), remember that your research can be a human-istic form of the social sciences, but it shouldn't be your quest to connect to all of humanity, the divine, or the cosmos; aesthetic assessments; sermons; travel journalism; or a boring diary. What makes your project research is that you connect it to a purpose—theoretically and/or in application—and that you put in the hard work to plug your small project into the bigger questions and paradigms of social science. As you think about your research design throughout this introductory process, keep asking yourself these questions:

- Am I really interested in this topic? Site? Method(s)?
- Is this problem something I can study? Or is it a question that is philosophical, artistic, or spiritual in nature? (These areas are outside the boundaries of social science.)
- Do I have the resources to do this project?
- Will this question, site, or method cause me angst ethically or in advancing my career? (It is best not to rock the boat too much when you are just beginning.)
- Will my results be interesting? Will anyone else care about my project? Who?

Now, leap in to the research design project with the workbook activities! What are your interests? Who will you be and what will you do as a researcher?

Reflective Prompts

1. Reflecting on my learning in this chapter, did I highlight or underline main points?

2. Do I understand the relationships between variables, indicators, and values?

3. Can I describe the various points a researcher must consider in terms of designing a research project?

Case Study

Vélez-Ibáñez, Carlos. 1929–1997. *Carlos G. Vélez-Ibáñez Sterilization Research Collection, 20*. Chicano Studies Research Center, UCLA (University of California, Los Angeles).

Vélez-Ibáñez, Carlos. 1980. "*Se Me Acabó la Canción*: An Ethnography of Non-consenting Sterilizations among Mexican Women in Los Angeles, California." In *Mexican Women in the United States: Struggles Past and Present*, edited by Magdalena Mora and Adelaida R. Del Castillo, occasional paper, University of California, Los Angeles.

See also Carlos Vélez-Ibáñez's interview in Bishop, Katelynn. 2018. "Film Review: No Más Bebés." *Teaching Sociology* 46 (3): 288–90.

The Project

I was asked by two young lawyers in 1978, as a brand-new professor at UCLA, the following question: "What is the impact of non-consenting sterilization on the cultural systems of the Mexican women who are part of a lawsuit against a Los Angeles County hospital?" I thought to myself, "How am I going to answer this? How am I going to find out what the impact is and be able to translate it into a narrative understood by lawyers rather than academics? How am I also going to substantiate my findings?" It's not good enough to just do this stuff; you have to substantiate it so that it supports your original thesis. My original thesis was that depending on where the women are from and how old they were, that this would influence the probable impact of the sterilization not only to them but also to their household. I set out a series of questions to get to that.

What I found out was that among the fourteen women, nine of them were from rural areas. And the average age was around thirty-four, so they were relatively young women. They all came from very large families. Because of this, part of the question I would ask was "What were your social networks like before you were sterilized?" but not that directly.

Based on past research I'd done for another project among Mexican households, I knew that the women were likely to have been impacted in their social networks, especially if they were rural and from large families. I reconstructed their social networks individually, including all the social networks of exchange: children's events, recreation, work, all the social domains they participated in. I figured out the density of those relationships pre- and post-sterilization. What I found was that for all the domains they participated in originally, many no longer participated in them as strongly or frequently. Additionally, a good proportion of the households had drawn all their curtains and made it dark in the house. This gave me a pretty good idea that many of these women were disconnected from their social networks. They said they felt embarrassed at these social events and stopped going because they were asked all the time why they didn't have more children. This was associated with a lot of shame and sadness because they had loved having lots of children. I then proceeded to correlate their responses to a series of depression scales that a psychiatrist on the case conducted, and the correlation was at .05 level of significance when I compared the level of network disengagement to the levels of depression.

The federal case came along, I testified, and among the questions the judge asked me was "How long did you spend in doing your fieldwork?" My answer was six months. He asked if I'd do it any other way, and I said no, or the study wouldn't have been worth anything. It took me six months to decipher and make conclusions about the alleged damage of these sterilizations. The judge ruled that the doctors couldn't have known the impact of their actions, so they won. I never touched another legal case again that wasn't a sure thing. All these years later, that case still haunts me.

How was your research question refined over time?

I paid more attention over time to each woman's relationship to her husband and her children and how this changed over time.

What personal interests led you to this research focus?

You have to know yourself and why you're doing what you're doing. Everything about me led me to this project. You have to really know yourself and your limitations and be really modest about what you think you know. You want to avoid the ego trip you can get under and remember you're not there for yourself.

What do you consider your research's contribution to anthropology to be?

I've always published everything I've worked on. A bunch of books and articles, many based on applied research. That's part of what's expected of us, and I enjoy writing some of the stuff. In a way, the writing is psychotherapy for me. It gets rid of some of the devils I carry around with me as an applied anthropologist.

What do you consider your research's contribution to the public or society to be?

While losing this case for these women still makes me upset, new federal rules were put in place as a result of the case that said doctors couldn't get consent from women undergoing anesthesia and that consent had to be direct and not implied.

What advice do you have about research design, based on your research career, for beginning researchers?

You have this original plan you've built, but the process can move you to a different end than you thought you'd study. You have to be open to the way that your questions will respond to a different process than you thought you'd face. You have to be open to information you never expected, and you move from there to the next decision about changes to your research design. Ethnographic research gives you opportunities to respond to the people you're studying through changes to your design. Rather than a linear design, where you build this original plan and then complete it, anthropology's strength is a processual design, where we change the design based on feedback we get through the ethnographic process.

Case Study Reflections

1. Carlos Vélez-Ibáñez explains the process by which a research project can be initiated by a need in a community, population, or group of individuals. What was the value of doing such work? What was the danger?

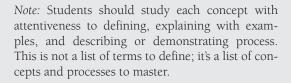2. Why is knowing yourself really important for conducting anthropological research? How

(*Continued*)

(Continued)

is critically reflecting on your ego, motives, and biases helpful for the process of research design?

3. How did Carlos Vélez-Ibáñez use his past research experiences to inform his current project? What does that tell you about the way anthropological researchers build their skills and knowledge over time?

4. What does it mean to have a processual research design? How is this arguably better and more suitable for ethnographic research than a linear research design?

STUDY GUIDE

Note: Students should study each concept with attentiveness to defining, explaining with examples, and describing or demonstrating process. This is not a list of terms to define; it's a list of concepts and processes to master.

Methods: epistemology, strategic methods, and techniques

Underlying assumptions and how they affect research

Science versus humanities orientation

Qualitative versus quantitative data

Deduction versus induction

Hypothetico-deductive model

Exploratory versus confirmatory research

Variable

Unidimensional versus multidimensional variable

Independent versus dependent variable

Correlation

Causality

Indicators

Values

Conceptual versus operational definition

Levels of measurement

Units of analysis

Case studies

Aggregate

Paradigm

Theory, BIG questions, and middle-range theory

Ethnography

Ethnology

Types of mistakes

Validity

Reliability

Reciprocal ethnography

Audit trail

Triangulation

Process to select a topic (things to consider)

FOR FURTHER STUDY

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