Research Methods in Anthropology

THIRD EDITION

Qualitative and Quantitative Methods

H. Russell Bernard

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percentage score. That's because theories are qualitative. Ideas about cause and effect are based on insight; they are derived from either qualitative or quantitative observations and are initially expressed in words. *Testing* causal statements—finding out *how much* they explain rather than *whether* they seem to be plausible explanations—requires quantitative observations. But theory construction—explanation itself—is the quintessential qualitative act.

3

Preparing for Research

Setting Things Up

This chapter and the next are about some of the things that go on *before* data are collected and analyzed. First, in this chapter, I'll take you through the ideal research process and compare that to how research really gets done. Then I'll discuss the problem of choosing problems—how do I know what to study? In the next chapter, I'll give you some pointers on how to scour the literature so you can benefit from the work of others when you start a research project.

I'll have a lot more to say about the ethics of social research in this chapter—choosing a research problem involves decisions that can have serious ethical consequences—and a lot more about theory, too. Method and theory, it turns out, are closely related.

The Ideal Research Process

Despite all the myths about how research is done, it's actually a messy process that's cleaned up in the reporting of results. Figure 3.1 shows how the research process is supposed to work in the ideal world:

1. First, a theoretical problem is formulated.
2. Next, an appropriate site and method are selected.
3. Then, data are collected and analyzed.
4. And, finally, the theoretical proposition with which the research was launched is either challenged or supported.

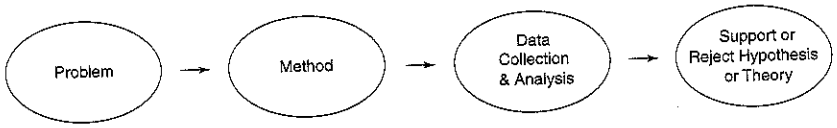

Figure 3.1. How research is supposed to work.

In fact, all kinds of practical and intellectual issues get in the way of this neat scheme. In the end, research papers are written so that the chaotic aspects of research are not emphasized, and the orderly inputs and outcomes are.

I see nothing wrong with this. It would be a monumental waste of precious space in books and journals to describe the *real* research process for every project that's reported. Besides, every seasoned researcher knows just how messy it all is, anyway. On the other hand, you shouldn't have to become a highly experienced researcher before you're let into the secret of how it's really done.

A Realistic Approach

There are five questions to ask yourself about every research question you are thinking about pursuing. Most of these can also be asked about potential research sites and research methods. If you answer these questions honestly (at least to yourself), chances are you'll do good research every time. If you cheat on this test, even a teeny bit, chances are you'll regret it. Here are the five questions:

1. Does this topic (or research site, or data collection method) really interest me?
2. Is this a problem that is amenable to scientific inquiry?
3. Are adequate resources available to investigate this topic? To study this population at this particular research site? To use this particular data collection method?
4. Will my research question, or the methods I want to use, lead to unresolvable ethical problems?
5. Is the topic of theoretical or practical interest?

Personal Interest

The first thing to ask about any research question is: Am I really excited about this? Researchers do their best work when they are genuinely having fun, so don't do boring research when you can choose any topic you like.

Of course, you can't always choose any topic you like. In contract research, you sometimes have to take on a research question that a client finds interesting but that you find deadly dull. The most boring research I've ever done was on a contract where my coworkers and I combined ethnographic and survey research of rural homeowners' knowledge of fire prevention and their attitudes toward volunteer fire departments. This was in 1973. I had young children at home and the research contract paid me a summer salary. It was honest work and I delivered a solid product to the agency that supported the project. But I never wrote up the results for publication.

By comparison, that same year I did some contract research on the effects of coed prisons on homosexuality among male and female inmates. I was very interested in that study and it was much easier to spend the extra time and effort polishing the contract reports for publication (Killworth and Bernard 1974).

I've seen many students doing research for term projects, master's theses, and even doctoral dissertations simply out of convenience and with no enthusiasm for the topic. If you are not interested in a research question, then no matter how important other people tell you it is, don't bother with it. If others are so sure that it's a dynamite topic of great theoretical significance, let *them* study it.

The same goes for people and places. Agricultural credit unions and brokerage houses are both complex groups. But they are very different kinds of places to spend time in, so if you are going to study a complex organization, check your gut first and make sure you're excited about where you're going. It's really hard to conduct penetrating, in-depth interviews over a period of a several weeks to a year if you aren't interested in the lives of the people you're studying.

You don't need any justification for your interest in studying a particular group of people or a particular topic. Personal interest is . . . well, personal. So ask yourself: Will my interest be sustained there? If the answer is "no," then reconsider. Accessibility of a research site or the availability of funds for

the conduct of a survey are pluses, but by themselves they're not enough to make good research happen.

Science vs. Nonscience

The next question is: Is this a topic that can be studied by the methods of science? If the answer is "no," then no matter how much fun it is, and no matter how important it seems, don't even try to make a scientific study of it. Either let someone else do it or use a different approach.

Consider this empirical question: How often do derogatory references to women occur in the Old Testament? If you can come up with a good, operational definition of "derogatory," then you can answer this question by looking through the corpus of data and counting the instances that turn up. Pretty straightforward, descriptive science.

But consider this question: Does the Old Testament offer support for unequal pay for women today? This is simply not answerable by the scientific method. It is no more answerable than the question, Is Rachmaninoff's music better than Tchaikovsky's? Or, Should the remaining hunting-and-gathering bands of the world be preserved just the way they are and kept from being spoiled by modern civilization? Whether or not a study is a scientific one depends first on the nature of the question being asked and *then* on the methods used.

I can't stress too often or too strongly that when I talk about using the scientific method I'm *not* talking about numbers. In science, whenever a research problem can be investigated with quantitative measurement, numbers are more than just desirable—they're required. On the other hand, there are many intellectual problems for which quantitative measures are not yet available. Those problems require qualitative measurement.

First-pass descriptions of processes (skinning a goat, building a fireworks tower, putting on makeup, setting the table for Thanksgiving), or of events (funerals, Little League games, parades), or of systems of nomenclature (kinship terms, disease terms, ways to avoid getting AIDS) require words, not numbers. Dorothy Holland and Debra Skinner (1987) asked some university women to list the kinds of guys there are. They got a list of words like "creep," "hunk," "nerd," "jerk," "sweetie pie," and so on. Then they asked some women, for each kind: "Is this someone you'd like to date?" The yes/no answers are nominal—that is, qualitative—measurement.

We'll get back to this kind of systematic, qualitative data collection in Chapter 11.

Resources

The next question to ask is whether adequate resources are available for you to conduct your study. There are three major kinds of resources: time, money, and people. What may be adequate for some projects may be inadequate for others. Be totally honest with yourself about this issue.

Time

Some research projects take days, while others take years. It takes a year or more to do an ethnographic study of a culture that is very different from your own. By contrast, the data-collection phase of surveys might be completed in a matter of weeks. A lot of applied anthropological research is now done in weeks or months, rather than in years, using rapid assessment methods. Rapid assessment methods are the same ones that everyone else uses, but they are done quickly. (See Chapter 13 for more on rapid assessment.)

If you are doing research for a term project, the topic has to be something you can look at in a matter of a few months—and squeezing the research into a schedule of other classes, at that. It makes no sense to choose a topic that demands two semesters' work when you have one semester in which to do the research. The effort to cram 10 gallons of water into a 5-gallon can is futile, though quite common. Don't do it.

Money

Many things come under the umbrella of money. Equipment is essentially a money issue, as is salary or subsistence for you and other persons involved in the research. Funds for assistants, computer time, supplies, and travel have to be calculated before you can actually conduct a major research project. No matter how interesting it is to you, and no matter how important it may seem theoretically, if you haven't got the resources to use the right methods, skip it for now.

Naturally, most people do not have the money it takes to mount a major research effort. That's why there are granting agencies. Writing proposals is a special craft. It pays to learn it early. Research grants for master's-level research are typically between $1,000 and $5,000. Grants for doctoral research are typically between $5,000 and $25,000. If you spend 100 hours working on a grant proposal that brings you $10,000 to do your research, that's $100 per hour for your time. If you get turned down and spend another 100 hours rewriting the proposal, that's still $50 an hour for your time if you're successful. Pretty good pay for interesting work.

If your research requires comparison of two groups over a period of 12 months, and you only have money for 6 months of research, can you accomplish your research goal by studying one group? Can you accomplish it by studying two groups for 3 months each? Ask yourself whether it's worthwhile pursuing your research if it has to be scaled down to fit available resources. If the answer is "no," then consider other topics.

Does the research require access to a particular village? Can you gain access to that village? Will the research require that you interview elite members of the society you are studying—village elders, shamans, medical malpractice lawyers, Lutheran priests? Will you be able to gain their cooperation? Or will they tell you to get lost or, even worse, lead you on with a lot of clichés about their culture? It's better not to do the study in the first place than to wind up with useless data.

People

"People" includes you and other persons involved in the research, as well as those whom you are studying. Does the research require that you speak Papiamento? If so, are you willing to put in the time and effort to learn that language? Can the research be done effectively with interpreters? If so, are such people available at a cost that you can handle? Does the research require that you personally do multiple regression analysis? If it does, are you prepared to acquire that skill?

Ethics

I wish I could give you a list of criteria against which you could measure the "ethicalness" of every research idea you ever come up with. Unfortunately, it's not so simple. What's popularly ethical today may become popularly unethical tomorrow, and vice versa.

During World War II, lots of anthropologists worked for what would today be called the Department of Defense, and they were applauded as patriots for lending their expertise to the war effort. In the 1960s, anthropologists took part in Project Camelot, a project by the U.S. Army to study counterinsurgency in Latin America. This caused a huge outpouring of criticism, and the American Anthropological Association (AAA) produced its first statement on ethics—not a formal code, but a statement—in 1967, rejecting quite specifically the use of the word "anthropology" as a disguise for spying (Fluehr-Lobban 1998:175).

During the Vietnam War, anthropologists who did clandestine work for the

Department of Defense were vilified by their colleagues, and in 1971 the AAA promulgated a formal code of ethics, titled *Principles of Professional Responsibility*. That document specifically forbade anthropologists from doing any secret research and asserted the AAA's right to investigate allegations of behavior by anthropologists that hurts people who are studied, students, or colleagues (ibid.:177).

Despite the rhetoric, though, no anthropologists have been expelled from the AAA because of unethical conduct. One reason is that, when push comes to shove, everyone recognizes that there are conflicting legitimate interests. In applied anthropology, for example, you have a serious obligation to those who pay for research. This obligation may conflict with your obligation to those whom you are studying. And when this happens, where do you stand? The Society for Applied Anthropology has maintained that the first obligation is to those whom we study. But the National Association of Practicing Anthropologists has promulgated a statement of professional responsibilities that recognizes how complex this issue can be.

We are a long, long way from finding the answers to these questions. Today, anthropologists are once again working for the Department of Defense. Is this simply because that's where the jobs are?

Milgram's Obedience Experiment

Perhaps. Times and popular ethics change. Whether you are subject to those changes is a matter for your own conscience, but it's because popular ethics change that Stanley Milgram was able to conduct his famous experiment on obedience in 1963. Milgram duped people into thinking that they were taking part in an experiment on how well human beings learn under conditions of punishment. The subjects in the experiment were told they were "teachers." The "learners" were in fact Milgram's accomplices.

The so-called learners sat behind a wall, where they could be heard by subjects, but not seen. The subjects sat at a panel of 30 switches. Each switch supposedly delivered 30 more volts than the last, and the switches were clearly labeled from "Slight Shock" (15 volts) all the way up to "Danger: Severe Shock" (450 volts). Each time the learner made a mistake on a word-recall test, the subject was told to give the learner a bigger shock.

Milgram paid each participant $4.50 up front (about $25 in 2001 dollars). That made them feel obligated to go through with the experiment in which they were about to participate. He also gave them a little test shock—45 volts (the second lever on the 30-lever panel). That made people believe that the punishment they'd be delivering to the so-called learners was for real.

At 75 volts the learner just grunted, but the reaction escalated as the putative

voltage increased. At 150 volts learners began pleading to be let out of the experiment. And at 285 volts the learner's response, as Milgram reported it, could "only be described as an agonizing scream" (1974:4).

Of course, all those reactions by the learners were played back from tape so that subjects would hear the same things. The experimenter, in a white lab coat, kept telling the subject to administer the shocks—saying things like: "You have no choice. You must go on." A third of the subjects obeyed orders and administered what they thought were lethal shocks. Many subjects protested, but were convinced by the researchers in white coats that it was all right to follow orders.

Until Milgram did his troubling experiments (he did many of them, under different conditions and in different cities), it had been very easy to scoff at Nazi war criminals, whose defense was that they were "just following orders." Milgram's experiment taught us that perhaps a third of Americans had it in them to follow orders until they killed innocent people.

Were Milgram's experiments unethical? Did the people who participated in Milgram's experiments suffer emotional harm when they thought about what they'd done? If you were among Milgram's subjects who obeyed to the end, would you be haunted by this? This was one of the issues raised by critics at the time (see Murray 1980).

Of course, Milgram **debriefed** the participants. (That's where you make sure that people who have just participated in an experiment know that it had all been make-believe, and you help them deal with their feelings about the experiment.) Milgram tested 369 people in his experiments (Milgram 1977a). A year after the experiments ended, he sent them each a copy of his report and a follow-up questionnaire. He got back 84% of the questionnaires: About 1% said they were sorry or very sorry to have taken part in the experiment; 15% said they were neutral about the whole thing; and 84% said that, after reading the report and thinking about their experience, they were glad or very glad to have taken part in the experiment (Milgram 1977b).

Thomas Murray, a strong critic of deception in experiments, dismisses the idea that debriefing is sufficient. He points out that most social psychologists get very little training on how to conduct a debriefing and help people through any emotional difficulties. "Debriefings," he says, "are more often viewed as discharging a responsibility (often an unpleasant one), an opportunity to collect additional data, or even as a chance for further manipulation!" (Murray 1980:14).

I can't imagine Milgram's experiment getting by a Human Subjects Review Committee at any university in the United States today. Still, it was less costly, and more ethical, than the natural experiments carried out at My Lai or Chatilla—the Vietnamese village and Lebanese refugee camps whose civilian

inhabitants were wiped out by American and Lebanese soldiers, respectively, "under orders." Those experiments, too, showed what ordinary people are capable of doing—except in those cases, people really got killed.

What Does It All Mean?

Just because times, and ethics, seem to change, does not mean that "anything goes." Everyone agrees that scholars have ethical responsibilities, but not everyone agrees on what those responsibilities are. All the major scholarly societies have published their own codes of ethics—all variations on the same theme, but variations nonetheless. I've listed the Internet addresses for several of these codes of ethics in Appendix F.

These documents are not perfect, but they cover a lot of ground and are based on the accumulated experience of thousands of researchers who have grappled with ethical dilemmas over the past 50 years. Look at those codes of ethics regularly during the course of any research project, both to get some of the wisdom that has gone into them and to develop your own ideas about how the documents might be improved.

Don't get trapped into nihilistic relativism. Cultural relativism (the unassailable fact that people's ideas about what is good and beautiful are shaped by their culture) is a great antidote for overdeveloped ethnocentrism. But, as Merrilee Salmon makes clear (1997), ethical relativism (that all ethical systems are equally good since they are all cultural products) is something else entirely.

Can you imagine defending the human rights violations of Nazi Germany as just another expression of the richness of culture? Would you feel comfortable defending, on the basis of cultural relativism, the so-called ethnic cleansing in the 1990s of Bosnians and Kosovar Albanians by Serbs in the former Yugoslavia? Or the slaughter of Tutsis by Hutus in Rwanda? Or of American Indians by immigrant Europeans 120 years earlier?

There is no value-free science. Everything that interests you as a potential research focus comes fully equipped with risks to you and to the people you study. Should anthropologists do social marketing for a state lottery? Or is social marketing only for getting people to use condoms and to wash their hands before preparing food? Should anthropologists work on projects that raise worker productivity in developing nations if that means some workers becoming redundant? In each case, all you can do (and *must* do) is assess the potential human costs and the potential benefits. And when I say "potential benefits," I mean not just to humanity in the abstract but also to you personally.

Don't hide from the fact that you are interested in your own glory, your

own career, your own advancement. It's a safe bet that your colleagues are interested in their career advancement, too. We have all heard of cases in which a scientist put her or his career above the health and well-being of others. This is devastating to science, and to scientists, but it happens when otherwise good, ethical people (1) convince themselves that they are doing something noble for humanity, rather than for themselves; and (2) consequently fool themselves into thinking that *that* justifies their hurting others.

When you make these assessments of costs and benefits, be prepared to come to decisions that may not be shared by all your colleagues. Remember the problem of the relation between darkness of skin color and measures of life success, like wealth and longevity? Would you, personally, be willing to participate in a study of this problem? Suppose the study was likely to show that a statistically significant percentage of the variation in earning power in the United States is predictable from (*not* caused by) darkness of skin color. Some would argue that this would be useful evidence in the fight against racism and would jump at the chance to do the investigation. Others would argue that the evidence would be used by racists to do further damage in our society, so the study should simply not be done lest the information it produces fall into the wrong hands.

There is no answer to this dilemma. Above all, be honest with yourself. Ask yourself: Is this ethical? If the answer is "no," then skip it; find another topic. Once again, there are plenty of interesting research questions that won't put you into a moral bind.

Theory: Explanation and Prediction

All research is specific. Whether you conduct ethnographic or questionnaire research, the first thing you do is *describe a process* or *investigate a relation* among some variables in a population. Description is essential, but to get from description to theory is a big leap. It involves asking "What causes the phenomenon to exist in the first place?" and "What does this phenomenon cause?" Theory, then, is about explaining and predicting things.

It may seem odd to talk about theory in a book about methods, but you can't design research until you choose a research question, and research questions depend crucially on theory. A good way to understand what theory is about is to pick something that begs to be explained and look at competing explanations for it. See which explanation you like best. Do that for a few phenomena and you'll quickly discover which paradigm you identify with. That will make it easier to pick research problems and to develop hypotheses that you can go off and test.

Alternative Paradigms for Building Theories

Here is an example of something that begs to be explained: Everywhere in the world, there is a very small chance that children will be killed or maimed by their parents. However, the chance of a child being killed by a parent is much higher if the child has one or more nonbiological parents than if the child has two biological parents (Lightcap et al. 1982; Daly and Wilson 1988). All those evil-stepparent folktales appear to be based on more than fantasy.

One explanation is that this is all biological—in the genes. After all, male gorillas are known to kill the offspring of new females they bring into their harem. Humans, the reasoning goes, have a bit of that instinct in them, too. They mostly fight and overcome the impulse, but among millions of cases, it's bound to come out once in a while. Culture usually trumps biology, but sometimes, biology is just stronger. This is a **sociobiological** explanation.

Another explanation is that it's cultural. Yes, it's more common for children to be killed by nonbiological than by biological parents, but this kind of mayhem is more common in some cultures than in others. Furthermore, although killing children is rare everywhere, in some cultures mothers are more likely to kill their children, while in other cultures fathers are more likely to be the culprits. This is because women and men learn different gender roles in different societies. So, the reasoning goes, we have to look at cultural differences for a true explanation of the phenomenon. This is called an **idealist**, or cultural, theory because it is based on what people think—on their ideas.

Yet another explanation is that, when adult men and women bring children to a second marriage, they know that their assets are going to be diluted by the claims the spouse's children have on those assets—immediate claims and claims of inheritance. This leads some of those people to harm their spouse's children from the former marriage. In a few cases, this causes death. This is a **materialist** theory.

Sociobiology, idealism, and materialism are not theories. They are **paradigms** or **theoretical perspectives**. They contain a few basic *rules for finding theories* of events. Sociobiology stresses the primacy of evolutionary, biological features of humans as the basis for human behavior. Idealism stresses the importance of internal states—attitudes, preferences, ideas, beliefs, values—as the basis for human behavior. And materialism stresses structural and infrastructural forces—the economy, the technology of production, demography, environmental conditions—as causes of human behavior.

When you want to explain a specific phenomenon, you apply the principles of your favorite paradigm and come up with a specific explanation. Why do women everywhere in the world tend to have nurturing roles? If you think that

biology rules here, then you'll be inclined to support biological theories about other phenomena as well. If you think that culture—people's values—is of paramount importance, then you'll tend to apply the ideational perspective in order to come up with explanations. If you think economic and political forces cause values and behavior, then you'll be inclined to apply the materialist perspective in your search for explanations in general: Can a change in material (economic, political, technological) conditions free women from their gender-typed roles?

The different paradigms are not so much in competition as they are complementary, for different levels of analysis. The sociobiological explanation for the battering of nonbiological children is appealing for aggregate, evolutionary phenomena—the big, big picture. A sociobiological explanation addresses the question: What is the reproductive advantage of this behavior happening at all?

But we know that the behavior is not inevitable, so a sociobiological explanation can't explain why some stepparents hurt their children and others don't. A materialist explanation is more productive for addressing this question. Some stepparents who bring a lot of resources to a second marriage become personally frustrated by the possibility of having their wealth raided and diluted by their new spouse's children. The reaction would be strongest for stepparents who have competing obligations to support their biological children who are living with yet another family. These frustrations will cause *some* people to become violent, but not others.

But even this doesn't explain why a particular stepparent is supportive or unsupportive of his or her nonbiological children. At this level of analysis, we need a processual explanation, one that takes into account the particular historical facts of the case. Whatever paradigm they follow, all empirical anthropologists rely on ethnography to test their theories.

Handwerker (1996b), for example, found that stepparents in Barbados were, overall, no more likely to treat children violently than were biological parents. But the presence of a *stepfather* increased the likelihood that women battered their daughters and decreased the likelihood that women battered their sons. In homes with stepparents, women saw their daughters as potential competitors for resources available from their partner and they saw sons as potential sources of physical protection and income.

And there was more. Powerful women (those who had their own sources of income) protected their children from violence, treated them affectionately, and elicited affection for them from their man. The probability that a son experienced an affectionate relationship with a biological father rose with the length of time the two lived together, but only for sons who had powerful mothers. Men battered powerless women and the children of powerless women, and powerless women battered their own children.

Is there a sociobiological basis for powerful spouses to batter powerless ones? Or is this all something that gets stimulated by material conditions, like poverty? More research is needed on this fascinating question, but I think the points here are clear: (1) different paradigms produce different answers to the same question; and (2) a lot of really interesting questions may have intriguing answers that are generated from several paradigms.

Idiographic and Nomothetic Theory

Theory comes in two basic sizes: elemental or **idiographic** theory, and generalizing or **nomothetic** theory. An idiographic theory accounts for the facts in a single case. A nomothetic theory accounts for the facts in many cases. The more cases a theory accounts for, the more nomothetic it is.

The distinction was first made by Wilhelm Windelband, a philosopher of science, in 1894. By the late 1800s, Wilhelm Dilthey's distinction between the **Naturwissenschaften** and **Geisteswissenschaften**—the sciences of nature and the sciences of the mind—had become quite popular. The problem with Dilthey's distinction, said Windelband, was that it couldn't accommodate the then brand-new science of psychology. The subject matter made psychology a Geisteswissenchaft, but the discipline relied on the experimental method, and this made it a Naturwissenschaft.

What to do? Yes, said Windelband, the search for reliable knowledge is, indeed, of two kinds: the sciences of law and the sciences of events, or, in a memorable turn of phrase, "the study of what always is and the study of what once was." Windelband coined the terms *idiographic* and *nomothetic* to replace Dilthey's Natur- and Geisteswissenschaften.

Organic evolution is governed by laws, Windelband observed, but the sequence of organisms on this planet is an event that is not likely to be repeated on any other planet. Languages are governed by laws, but any given language at any one time is an event in human linguistic life. The goal of the idiographic, or historical sciences, then, is to deliver "portraits of humans and human life with all the richness of their unique forms" (Windelband 1998 [1894]:16).

Windelband went further. Every causal explanation of an event—every idiographic analysis, in other words—requires some idea of how things happen at all. No matter how vague the idea, there must be nomothetic principles guiding idiographic analysis.

Windelband's formulation is a perfect description of what all natural scientists—vulcanologists, ornithologists, astronomers, ethnographers—do all the time. They describe things; they develop deep understanding of the cases they study; and they produce explanations for individual cases based on nomothetic

rules. The study of *a* volcanic eruption, of *a* species' nesting habits, of *a* star's death is no more likely to produce new nomothetic knowledge than is the study of *a* culture's adaptation to new circumstances. But the idiographic effort, based on the application of nomothetic rules, is required equally across all the sciences if induction is to be applied and greater nomothetic knowledge achieved.

Those efforts in psychology are well known: Sigmund Freud (1856–1939) based his theory of psychosexual development on just a few cases. Jean Piaget (1896–1980) did the same in developing his universal theory of cognitive development, as did B. F. Skinner in developing the theory of operant conditioning.

In anthropology, Lewis Henry Morgan and others made a brave, if ill-fated, effort in the nineteenth century to create nomothetic theories about the evolution of culture from the study of cases at hand (see Morgan 1877). The unilineal evolutionary theories they advanced were wrong, but the effort to produce nomothetic theory was *not* wrong. Franz Boas and his students made clear the importance of paying careful attention to the particulars of each culture, but Leslie White and Julian Steward did not reject the idea that cultures evolve. Instead, they advanced more nuanced theories about how the process works (see Steward 1949, 1955; White 1959).

And the effort goes on. Wittfogel developed his hydraulic theory of cultural evolution (1957) based on idiographic knowledge from a handful of cases. The in-depth, idiographic analysis by David Price of a modern-day water supply system in Egypt (1993) lends support to Wittfogel's long-neglected theory. This calls for more idiographic analysis, more explanations of cases.

Julian Steward chose a handful of cases when he developed his theory of culture change (1955). Data from sites six thousand miles and several thousand years apart support Steward's nomothetic formulation about the transition from hunting and gathering to agriculture. (The sequences appear to be similar responses to the retreat—earlier in Europe, later in North America—of the last glacier of the Paleolithic.) As we get more comparisons, the big picture will either become more and more nomothetic or it will be challenged.

Idiographic Theory

As in all sciences, most theory in anthropology is idiographic. Here are three examples:

1. In 1977, the New Delhi police reported 311 deaths by kitchen fires of women, mostly young brides who were killed because their families had not delivered a promised dowry to the groom's family (Claiborne 1984). By 1987, the government of India reported 1,912 such "dowry deaths" of young women, and by 1994 the number was 5,199—more than 14 per day (Thakur 1996). How to explain this phenomenon?

   Gross (1992) theorized that the phenomenon is a consequence of female hypergamy (marrying up) and dowry. Families that can raise a large dowry in India can marry off their daughter to someone of greater means. This has created a bidding war, as the families of wealthier sons demand more and more for the privilege of marrying those sons.

   Apparently, many families of daughters in India have gone into debt to accumulate the dowries. When they can't pay off the debt, some of the families of grooms have murdered the brides in faked "kitchen accidents," where kerosene stoves purportedly blow up. This gives the grooms' families a chance to get another bride whose families can deliver. (For more on this issue, see Van Willigen and Chana 1991 and Thakur 1996.)
2. Next, consider the well-known case of fraternal polyandry. Hiatt (1980) noticed that among the Sinhalese of Sri Lanka, there was a shortage of women among those groups that practiced polyandry. He theorized that the shortage of women accounted for the practice of polyandry.

   Earlier, Goldstein (1971) observed that in Tibet, polyandry was practiced only among people who didn't own land. It turns out that in feudal times, some peasants were given a fixed allotment of land which they could pass on to their sons. In order to not break up the land, brothers would take a single bride into one household.
3. Finally, consider an idiographic theory derived entirely from ethnography. Anthony Paredes has been doing research on the Poarch Band of Creek Indians in Alabama since 1971. When he began his research, the Indians were a remnant of an earlier group. They had lost the use of the Creek language, were not recognized by the U.S. government as a tribe, and had little contact with other Indians for decades. Yet, the Poarch Creek Indians had somehow maintained their identity.

   Paredes wanted to know how the Indians had managed this. He did what he called "old-fashioned ethnography," including key-informant interviewing, and learned about a cultural revitalization movement that had been going on since the 1940s. That movement was led by some key people whose efforts over the years had made a difference. Paredes's description of how the Poarch Creek Indians held their cultural identity in the face of such odds is an excellent example of elemental, idiographic theory. As you read his account, you feel you understand how it worked (see Paredes 1974, 1992).

So What's Wrong?

Nothing's wrong. Gross's intuitively appealing explanation for the kitchen fires in India rings true, but it doesn't explain why other societies that have escalating dowry don't have kitchen fires. Nor does it tell us why dowry persists in India despite its being outlawed since 1961, or why dowry—which,

after all, only occurs in 7.5% of the world's societies—exists in the first place. But Gross's theory is a first-class example of theory at the local level—where research begins.

Paredes's convincing theory of how the Poarch Creeks maintained their cultural identity doesn't tell us how other Native American groups managed to do this or why some groups did *not* manage it. Nor does it tell us anything about why other ethnic groups maintain or fail to maintain their identity in the United States or why ethnicity persists at all in the face of pressure from states on ethnic groups to assimilate. Fine. Others can try to make the theory more nomothetic.

In any science, much of the best work is at the idiographic level of theory making.

Nomothetic Theory

Nomothetic theories address questions like "So, what *does* account for the existence of dowry?"

Several theorists have tried to answer this question. Esther Boserup (1970) hypothesized that dowry should occur in societies where a woman's role in subsistence production is low. She was right, but many societies where women's productive effort is of low value do *not* have dowry.

Gaulin and Boster (1990) offered a sociobiological theory that predicts dowry in stratified societies that have monogamous or polyandrous marriage. They tested their theory on Murdock and White's (1969) Standard Cross-Cultural Sample of 186 societies. The Gaulin-Boster theory works better than Boserup's—it misclassifies fewer societies—but still makes some mistakes. Fully 77% of dowry societies are, in fact, stratified and have monogamous marriage, but 63% of all monogamous, stratified societies do *not* have dowry.

Harris (1980), building on Boserup's model, hypothesized that dowry should occur in societies where women's role in subsistence production is low *and* where their value in reproduction is also low. In other words, if women are a liability in both their productive and reproductive roles, one should expect dowry as a compensation to the groom's family for taking on the liability represented by a bride who marries into a groom's family.

Adams (1993) operationalized this idea. He reasoned that, since women are less suited physically to handling a plow, societies with plow agriculture and high-quality agricultural land should find women's labor of low value. If those societies have high population density, then women's reproductive role should be of low value. Finally, in societies with both these characteristics, patrilocal residence would make accepting a bride a real liability and would lead to demand for compensation—hence, dowry.

Adams tested his idea on the same sample of 186 societies. His theory makes about 25% fewer errors than the Gaulin-Boster theory does in predicting which societies have dowry. There has thus been a succession of theories to account for dowry; each theory has done a bit better than the last, and each has been based on reasoning from commonsense principles. That's how nomothetic theory grows.

A lot of comparative research is about testing nomothetic theory. If an idiographic theory accounts for some data in, say, India or Japan or England, then an obvious next step is to see how far the theory extends. Alice Schlegel and Herbert Barry (1986), for example, looked at the consequences of female contribution to subsistence. Their nomothetic theory predicts that women will be more respected in societies where they contribute a lot to subsistence than in societies where their contribution is low.

Of course, whether their theory is supported depends crucially on how Schlegel and Barry operationalize the concept of *respect*. In societies where women contribute a lot to subsistence, say Schlegel and Barry, women will be spared some of the burden of pregnancy "through the attempt to space children" more evenly (ibid.:146). In such societies, women will be subjected to rape less often; they will have greater sexual freedom; they will be worth more in bride wealth; and they will have greater choice in selection of a spouse. Schlegel and Barry coded the 186 societies in the Standard Cross-Cultural Sample for each of those indicators of respect—and their predictions were supported.

Let's do one more—the second demographic transition. The first demographic transition happened at the end of the Paleolithic era when people swapped agriculture for hunting and gathering as the main means of production. During the Paleolithic, population growth was very, very slow. But across the world, as people switched from hunting and gathering to agriculture, as they settled down and accumulated surplus, their populations exploded.

The second demographic transition began in the late eighteenth century in Europe with industrialization and has been spreading around the world ever since. Today, Japan, Belgium, Italy, and other highly industrialized countries have **total fertility rates** (the average number of children born to women during their entire lives), or **TFRs**, in the neighborhood of 1.3—that's about 38% below the 2.1 TFR needed in those countries just to replace the current population. In the last 30 years, some previously high TFR countries, like Barbados, Mauritius, and Mexico, have also been through a major demographic transition.

Explaining why women in Barbados are having fewer children is

idiographic; predicting the conditions under which women in *any* underdeveloped country will start lowering their fertility rate is nomothetic. Handwerker's theory (1989) is that women in low-wage jobs encourage their daughters to get more education. And when women get sufficiently educated, their participation in the labor market becomes more effective (they earn more), freeing them from dependency on men (sons and husbands). As this dependency diminishes, women lower their fertility.

Handwerker's theory is nomothetic and materialist. It relies on material conditions forces to explain how preferences develop for fewer children, and it does not rely on preferences (culture, ideas, values) to explain the level of a country's TFR.

The Consequences of Paradigm

Differences in theoretical paradigms have profound consequences. If you think that beliefs and attitudes are what make people behave as they do, then if you want to change people's behavior, the obvious thing to do is change their attitudes. This is the basis of the **educational model of social change** I mentioned in Chapter 2—the runaway best-seller model for change in our society.

Want to get women in developing nations to have fewer children? Educate them about the importance of small families. Want to lower the rate of infectious disease in developing countries? Educate people about the importance of good hygiene. Want to get adolescents in Boston or Seattle or wherever to stop having high-risk sex? Educate them about the importance of abstinence or, if that fails, about how to take protective measures against sexually transmitted disease. Want to get people in the United States to use their cars less? Educate them about carpooling.

These kinds of programs rarely work—but they do work sometimes. You *can* educate people (through commercial advertising) about why they should switch from, say, a Honda to a Toyota, or from a Toyota to a Ford, but you can't get people to give up their cars. You *can* educate people (through social advertising) to use the pill rather than less-effective methods of birth control, once people have decided to lower their fertility, but educational rhetoric doesn't influence the number of children that people want in the first place.

The closer a behavior is to the culture (or **superstructure**) of society, the easier it is to intervene culturally. Brand preferences are often superstructural, so advertising works to get people to switch brands—to change their behavior. But if people's behavior is rooted in the **structure** or **infrastructure** of society, then forget about changing their behavior by educating them to have better attitudes.

For example, in poor countries, having many children may be the only security people have in their old age. No amount of rhetoric about the advantages of small families is going to change anyone's mind about the number of children they want to have. If you need a car because the only affordable housing is 30 miles from your job, no amount of rhetoric will convince you to take the bus.

Demographic transition theory is highly nomothetic. It accounts for why Japan, a fully industrialized nation, has such a low TFR. But it doesn't predict what the consequences of that low TFR will be. For the time being, at least (until even bigger nomothetic theories are developed), we still need an idiographic theory for this.

Japan has about 130 million people—about half the population of the United States—living in an area the size of Montana. The Japanese enjoy one of the highest per capita incomes in the world, largely based on manufacturing products for export. The oil to run the factories that produce all those exports has to be imported. So does a lot of food to feed all those people who are working in the factories. The TFR of 1.3 in Japan makes it easy to predict that, in the next 20 or 30 years, Japan's industries will need to find lots of new workers to maintain productivity—and the lifestyle supported by that productivity.

Belgium and Italy—two other countries with comparable TFRs—have solved this problem by opening their borders to people from the formerly communist countries of eastern Europe. There are lots of people in Asia who are looking for work, but 97% of Japan's population is ethnically Japanese. Many Japanese don't like the idea of opening their borders to, say, Filipinos or Indonesians, so it will be a hard sell, in terms of domestic politics, for the government of Japan that proposes this solution to the problem of the coming labor shortage. Of course, Japan could recruit women more fully into the workforce, but many Japanese—particularly men—find this unappealing as well.

Obviously, something will have to give. Either Japan's productivity will drop, or workers will be recruited from abroad, or Japanese women will be recruited into the high-paying jobs of Japan's industrial machine. Demographic transition theory—a very nomothetic theory, indeed—does not tell us which of these alternatives will win out. Idealist theorists, particularly scholars who are immersed in the realities of modern Japanese society and culture, will contribute their own ideas about which choice will win. What I'm hoping for is a nomothetic theory that explains this kind of choice in many countries, not just in one.

This is one of my current favorite topics to think about because it illustrates how important theory is in developing research questions and it showcases the contributions of idealist and materialist perspectives, as well as the importance of idiographic and nomothetic theory.

There is no "list" of research questions. You have to use your imagination and your curiosity about how things work, and follow your hunches. Above all, never take anything at face value. Every time you read an article, ask yourself: "What would a study look like that would test whether the major assertions and conclusions of this article were really correct?" If someone says, "The only things students really care about these days are drugs, sex, and rock and roll," the proper response is, "We can test that."

A Guide to Research Topics, Anyway

There may not be a list of research topics, but there are some useful guidelines. First of all, there are very few big-theory issues—I call them research *arenas*—in all of social science. Here are four of them: (1) the nature-nurture problem; (2) the evolution problem; (3) the internal-external problem; and (4) the superorganic social facts problem.

1. **The nature-nurture problem.** This one is quite familiar. Research on the extent to which differences in the cognitive functions of men and women are the consequence of environmental factors (nurture) or genetic factors (nature)—or the interaction between those factors—is part of this arena. So are studies of human response to signs of illness across cultures.
2. **The evolution problem.** Studies of how groups change through from one *kind* of thing to another are in this arena. Societies change very slowly through time, but at some point we say that a society has changed from, say, feudal to industrial. All studies of the differences between small societies—**Gemeinschaften**—and big societies—**Gesellschaften**—are in this arena. So are studies of inexorable bureaucratization as organizations grow.
3. **The internal-external problem.** Studies of the way in which behavior is influenced by values and by environmental conditions are in this arena. Studies of **response effects** (how people respond differently to the same question asked by a woman or by a man, for example) are in this arena, too.
4. **The social facts, or emergent properties, problem.** The name for this problem comes from Emile Durkheim's (1933 [1893]) argument that social facts exist outside of individuals and are not reducible to psychological facts. A great deal of social research is based on the assumption that people are influenced by social forces that *emerge* from the interaction of humans but that transcend individuals. Many studies of social networks and social support, for example, are in this arena, as are studies that test the influence of organizational forms on human thought and behavior.

Generating Types of Studies

Now look at Table 3.1. I have divided research topics (not arenas) into classes, based on the relation among kinds of variables.

TABLE 3.1
Types of Studies

	Internal States	*External States*	*Reported Behavior*	*Observed Behavior*	*Artifacts*	*Environment*
Internal states	I	II	IIIa	IIIb	IV	V
External states		VI	VIIa	VIIb	VIII	IX
Reported behavior			Xa	Xb	XIa	XIIa
Observed behavior				Xc	XIb	XIIb
Artifacts					XIII	XIV
Environment						XV

The five major kinds of variables are:

1. **Internal states.** These include attitudes, beliefs, values, and perceptions. Cognition is an internal state.
2. **External states.** These include characteristics of people, such as age, wealth, health status, height, weight, gender, and so on.
3. **Behavior.** This covers what people eat, who they communicate with, how much they work and play—in short, everything that people do and much of what social scientists are interested in understanding.
4. **Artifacts.** This includes all the physical residue from human behavior—radioactive waste, tomato slicers, sneakers, arrowheads, computer disks, Viagra, skyscrapers—everything.
5. **Environment.** This includes physical and social environmental characteristics. The amount of rainfall, the amount of biomass per square kilometer, location on a river or oceanfront—these are physical features that influence human thought and behavior. Humans also live in a social environment. Living under a democratic vs. an authoritarian regime or working in an organization that tolerates or does not tolerate sexual harassment are examples of social environments that have consequences for what people think and how they behave.

Keep in mind that category 3 includes both reported and actual behavior. A great deal of research has shown that about a third to a half of everything people report about their behavior is not true (Bernard et al. 1984). If you want to know what people eat, for example, asking them is not a good way to find out (Basiotis et al. 1987; Johnson et al. 1996). If you ask people how many times a year they go to church, you're likely to get highly exaggerated data (Hadaway et al. 1993, 1998).

Some of the difference between what people say they do and what they actually do is the result of out-and-out lying. Most of the difference, though, is the result of the fact that people can't hang on to the level of detail about

their behavior that is called for when they are confronted by social scientists asking them how many times they did this or that in the last month. Of course, what people *think* about their behavior may be what you're interested in, but that's a different matter.

Most social research focuses on internal states and on reported behavior. But the study of humanity can be much richer, once you get the hang of putting together these five kinds of variables and conjuring up potential relations. Here are some examples of possible studies for each of the cells in Table 3.1.

Cell I:

The interaction among internal states, like perceptions, attitudes, beliefs, values, and moods.

Religious beliefs and attitudes about gun control in the United States (Flanagan and Longmire 1996).

Relation between perceiving a common fate between humans and animals and preference for different conservation policy objectives (Opotow 1994; Liu et al. 1997).

Cell II:

The interaction of internal states (perceptions, beliefs, moods, etc.) and external states (completed education, health status, organizational conditions).

Health status and hopefulness about the future (Vieth et al. 1997).

The relation between racial attitudes and the political context in different cities (Glaser and Gilens 1997).

Cell IIIa:

The interaction between *reported* behavior and internal states.

Attitudes toward the environment and reported environment-friendly behavior (Minton and Rose 1997).

Reported rate of church attendance and attitude toward premarital sex (Petersen and Donnenwerth 1997).

Cell IIIb:

The interaction between *observed* behavior and internal states.

Attitudes and beliefs about resources and actual behavior in the control of a household thermostat (Kempton 1987).

The effect of increased overtime work on cognitive function in automotive workers, including attention and mood (Proctor et al. 1996).

Cell IV:

The interaction of material artifacts and internal states.

The effects on Holocaust Museum staff in Washington, D.C., of working with the physical reminders of the Holocaust (McCarroll et al. 1995).

The ideas and values that brides and grooms in the United States share (or don't share) about the kinds of ritual artifacts that are supposed to be used in a wedding (Lowrey and Otnes 1994).

How children learn that domestic artifacts are considered feminine, while artifacts associated with nondomestic production are considered masculine (Crabb and Bielawski 1994).

Cell V:

The interaction of social and physical environmental factors and internal states.

How culture influences the course of schizophrenia (Edgerton and Cohen 1994).

The extent to which adopted children and biological children raised in the same household develop similar personalities (McGue et al. 1996).

Cell VI:

The interaction among external states as it relates to outcomes like longevity or financial success.

The effects of things like age, sex, race, marital status, education, income, employment status, and health status on the risk of dying from the abuse of illegal drugs (Kallan 1998).

The interaction of variables like marital status, ethnicity, medical risk, and level of prenatal care on low birth weight (Abel 1997).

Cell VIIa:

The relation between external states and *reported* behavior.

The likelihood that baby-boomers will report attending church as they get older (Miller and Nakamura 1996).

Gender differences in self-reported suicidal behavior among adolescents (Vannatta 1996).

Cell VIIb:

The relation between external states and *observed* behavior.

Health status, family drug history, and other factors associated with women who successfully quit smoking (Jensen and Coambs 1994). (Note: This is also an example of Cell XIIb.)

How observed recycling behavior among Mexican housewives is predicted by their observed competencies vs. their beliefs about recycling (Corral-Verdugo 1997).

Cell VIII:

The relation of physical artifacts and external states.

How age and gender differences relate to cherished possessions among children and adolescents from 6 to 18 years of age (Dyl and Wapner 1996).

Cell IX:

The relation of external states and environmental conditions.

How the work environment contributes to heart disease (Kasl 1996).

The relation of daily levels of various pollutants in the air and such things as violent crimes or psychiatric emergencies (Briere et al. 1983).

Cell Xa:

The relation between behaviors, as *reported* by people to researchers.

The relation of self-reported level of church attendance and self-reported level of environmental activism among African Americans in Louisiana (Arp and Boeckelman 1997).

The relation of reported changes in fertility practices to reported changes in actions to avoid HIV infection among women in rural Zimbabwe (Gregson et al. 1998).

Cell Xb:

The relation between *reported* and *observed* behavior.

The relation of reports about recycling behavior and actual recyling behavior (Corral-Verdugo 1997).

The relation of responses by frail elderly men to the Activities of Daily Living Scale with observations of those same men as they engage in activities of daily living (Skruppy 1993).

Cell Xc:

The relation between various *observed* behaviors. Comparing the food production behavior of hunter-gatherer women who accompany men on hunts for honey with that of those who don't (Hawkes et al. 1997).

Cell XIa:

The relation of *observed* behavior to specific physical artifacts.

Using content analysis of top-grossing films over 31 years to compare "tobacco events" (the presence of tobacco paraphernalia, as well as characters talking about smoking or actually smoking) to the actual rate of smoking in the population (Hazan et al. 1994).

Cell XIb:

The relation of *reported* behavior to specific physical artifacts.

How people who are employed view prized possessions as compared to the way people who are unemployed see theirs (Ditmar 1991).

Cell XIIa:

The relation of *reported* behavior to factors in the social or physical environment.

The relation of compulsive consumer behavior in young adults and whether they were raised in intact or disrupted families (Rindfleisch et al. 1997).

Cell XIIb:

The relation of *observed* behavior to factors in the social or physical environment.

How people spend more or less time in a store and spend more or less money, depending on factors in the store environment (Sherman et al. 1997).

Cell XIII:

The association of physical artifacts to one another and what this predicts about human thought or behavior.

Comparing the favorite possessions of urban Indians (in India) and Indian immigrants to the United States to see whether certain sets of possessions remain meaningful among immigrants (Mehta and Belk 1991). This is also an example of Cell IV. Note the difference between expressed *preferences* across artifacts and the coexistence of artifacts across places or times.

Cell XIV:

The probability that certain artifacts (relating, for example, to subsistence) will be found in certain physical or social environments (rain forests, deserts, shoreline communities). This area of research is mostly the province of archaeology.

Cell XV:

How features of the social and physical environment interact and affect human behavioral and cognitive outcomes.

How social and physical environmental features of retail stores interact to affect the buying behavior of consumers (Baker et al. 1992).

The above list is only meant to give you an idea of how to think about potential covariations and, consequently, about potential research topics. Always keep in mind that *covariation does not mean cause*. Covariation can be spurious, the result of an antecedent or an intervening variable. (Refer to Chapter 2 for a discussion of causality, spurious relations, and antecedent variables.)

And keep in mind that many of the examples in the list above are statements about possible **bivariate correlations**—that is, about possible covariation between two things. Social phenomena being the complex sorts of things they are, a lot of research involves **multivariate relations**—that is, covariation among three or more things at the same time.

For example, it's well known that people who call themselves religious conservatives in the United States are likely to support the National Rifle Association's policy on gun control (Cell I). But the association between the two variables (religious beliefs and attitudes toward gun control) is by no means perfect and is affected by many intervening variables.

I'll tell you about testing for bivariate relations in Chapter 20 and about testing for multivariate relations in Chapter 21. As in so many other things, you crawl before you run and you run before you fly.

4

The Literature Search

The first thing to do after you get an idea for a piece of research is to find out what has already been done on it. Don't neglect this very important part of the research process. You need to make a truly heroic effort to uncover sources. Without that effort, you risk wasting a lot of time going over already-covered ground. Even worse, you risk having your colleagues ignore your work because you didn't do your homework.

Fortunately, with all the new **documentation resources** available, heroic efforts are actually pretty easy. There are three main documentation resources: (1) people, (2) review articles and bibliographies, and (3) modern bibliographic search tools.