

# Thinking Through Methods

A SOCIAL SCIENCE PRIMER

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# Sharpen Your Tools

*Methods are means to an end, and you control them by using things in your brain, like concepts, which are mental tools. You don't want hand-me-down tools that are rusty with neglect. Know what you are doing and be willing to defend it.*

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## **What Are Methods of Sociological Research?**

### *What Is Research?*

This is a book about how to do sociological research. And so I think it is appropriate to talk about what research is. It is, first and foremost, *work*. One does not do work for nothing. Why do it? Even if you think it is only done for self-centered reasons (e.g., to get an A in a class, to get an article published, to get a job, or to get tenure), that begs the question of why there is a system in which this work is required.

The answer is that social science is one of the types of knowledge that require work to be done right, often very hard work, over long stretches of time, often on the part of many different people. Methods are about the how of this work. That means that if you're not interested in methods, it's like being a violinist and not being interested in playing. This is what you do all day... if you're really doing something. And to get these methods to do something for us, we need to use them seriously, not ritualistically, and think them through.

### *How Do We Use Our Brains?*

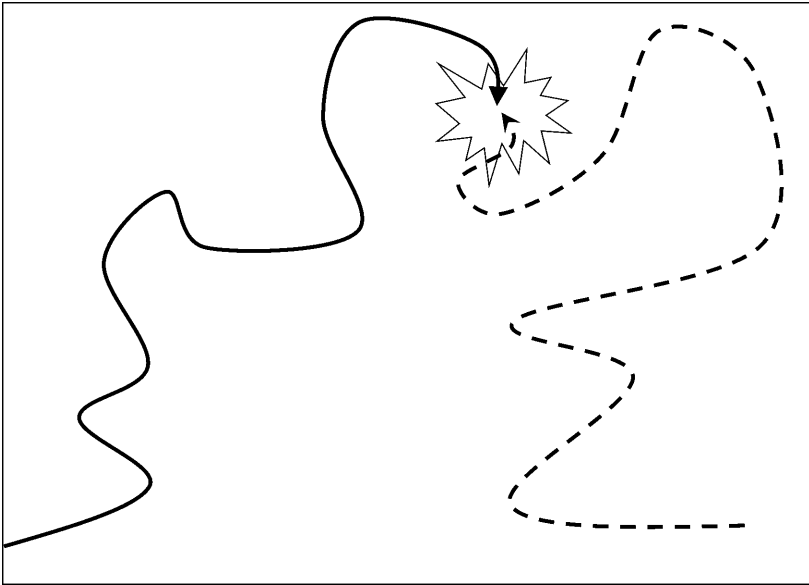
One of the things about our partition of sociology into theory, methods, and substance is that we forget that we can use our brains not just in the theory part but also in the methods part. In fact, the key argument of this book is that we need to "theorize" our own practice... not in the sense that most folks mean by "theorize," which is basically to toss a lot of fancy

abstractions around hither and thither. I mean the opposite—we need to really have a scientifically defensible understanding of what we are doing before we give much credence to the results. If you were a contaminant ecologist attempting to see whether fish in some lake had too many toxins, you wouldn't just stop by a fish fry some folks are having and take a nibble, would you? So why do the equivalent as a sociologist?

In order to understand what our data—our experiences and interactions with the world—mean for us, we need to spend a fair amount of time understanding “where” in the world we are, and what we are really doing. We're going to be trying to think about both the planned and the unplanned aspects of research. Let's start with the planned parts. The most straightforward way that we use our brains in research is to construct a research *design*—a plan for future research that guides our data *collection* efforts so that we can compile our data usefully, and that guides our data *compilation* efforts so that we can bring our data to bear on the questions we're interested in. The key to research design is understanding which kinds of problems are most likely to be relevant to our proposed case of research and seeing if we can be clever enough to avoid a head-on collision with them.

A good research design can avoid many problems, but not all. Much of the difficult work comes in ways that our research design didn't anticipate or wasn't relevant for. For this reason, we will find that we need to think through—carefully, rigorously, and without mystification or wishful thinking—*all* the steps that go into making our claims (also see Latour 2005, 133), starting from the very first: “How did I get interested in this question? Where did I get the concepts I use to think about it?” And then on to: “How did I end up at this particular site? Why am I talking to these people and not those?” Or, “Why am I looking at these documents and not those?” And then on to things like: “When someone says, ‘Yes, I approve of Obama's foreign policy’ to me, what is going on? What did *I* say to provoke this? What was the setting in which this was embedded?” and so on. If you do this, you have a remarkably good chance of doing something worthy of being called social science.

In other words, the process of producing knowledge can be understood impressionistically as a meeting between your mind and some part of the world (perhaps a particular person at a particular place saying a particular thing). To understand what this interaction produces, to make it truly a *datum*, as opposed to a profound mystery, requires reconstructing, as best as we can, the nature of the meeting. Figure 1 gives a schematic rendition of this process. The rectangle you are in represents all the “places” (analogically speaking) you could have this interaction. The solid line represents your path, and the broken line that of the part of the world.



What is your path? Perhaps something very simple: you wanted to study young Americans' attitudes toward sexual preference—do they see it as genetic or not? Already, in a way, you have started moving down one path, merely by thinking of this question and not others, and in formulating the terms in which you are thinking about it (perhaps you are assuming that “biological” and “genetic” mean the same thing to people). But then you make other choices. First, you stayed in the city where your own school is, as opposed to going to one of the other twenty-five thousand towns and cities in the United States. Second, you got permission to pass out flyers in the lunchroom at two high schools, as opposed to the other two hundred schools in the area. And then you waited.

Some parts of the process happened behind the scenes, as far as you were concerned. Students got the flyers. Some immediately became paper airplanes. Others were the subject of guffaws in the cafeteria. Some were carefully folded and put in a back pocket, sometimes by a guffawer. Others were stuffed into textbooks. Some of those folded and stuffed flyers were only found months later. Some were found soon, and here and there, a student pondered whether to volunteer. More decided to volunteer than actually called you. Some called, but when you weren't there, they didn't leave a message; perhaps especially those without their own phones. Some made plans to meet with you but never showed. And when they did, you asked some particular questions (among others)—a few out of the near infinite number you could have asked. And only *then* did you get your (po-

tential) information in response. This answer is only a datum when it can be placed, with great imprecision, of course, in this overall landscape of acts of choice and selection.

I will be emphasizing this selection and selectivity throughout. We often now may associate this issue with causal estimation. That's only one teeny part of selectivity. It's about the choices that we make, and those that others make. We can't control others' choices, but we can theorize them. And we can control our own. So make good choices. To do this, we need to pursue our investigations with symmetry, with impartiality (*sine ira et studio*, as Weber would say), and without bad behavior on our side. I'm going to be arguing that you need to really pursue this ideal, and not simply in some vague lip-service, recognize-it's-best-but-not-plausible-for-mere-mortals way, but as in, when someone draws your attention to a lapse here, you fix it. Sure, smart aleck reader, I also read the philosophy of science, and I admit that I can't *prove* to students that this is necessary, if you are going to do valid social research. But students have proven it to *me*.

To orient ourselves, let's back up, and see what we're doing with this whole "methods" thing.

### *Methods in General*

There are some things that are—or should be—common to *all* sociological methods. First, sociological methods are, I believe, driven by a *question*. That might sound funny or obvious, but it's not; in fact, most sociologists seem to disagree with me here. But I think that things we do that *aren't* driven by a question aren't methods—they're not a means to an intellectual end. They're dressing, ritual, whatever.

Second, sociological methods involve a good faith attempt to find a *fair sample* of the universe at question. Not a "representative" one, but a *fair* one. A question has multiple places where it can be answered, and your answer may depend on which place you examine. For example, say you start with the question, "Does strong leadership increase or decrease members' attachment to the group?" You might get a different question if you looked at army platoons than if you looked at the history of the British monarchy.

There are two implications. The first is that if you have an answer you *want* to find, it isn't *fair* to choose a site that's likely to give you the answer you want. The second implication (which I'll discuss more in the next chapter) is that if it really seems like your answer completely depends on where you look, you don't yet have a proper question.

Third, sociological methods push us to be *systematic* in answering the question, allowing for disconfirmation of our hunches as opposed to selectively marshaling the evidence we want. In the most satisfying cases,

we construct a “research design” like the mousetrap in that board game—a whole elaborate machinery is set up, then we pull the switch (by collecting our data), and see what happens.

It’s rare for research to unfold so mechanically. And for that reason, sometimes we need to be “unsystematically systematic.” That is, we have to figure out what’s the sort of evidence that we *haven’t* seen yet and that might lead to a different conclusion. (This is what Mitchell Duneier [2011] calls “inconvenience sampling.”)

Fourth, sociological methods tend—if only for rhetorical reasons—to stress comparison and hence variation. It’s hard to know if you’re right or wrong in explaining something that doesn’t vary—something that’s always there. So some of the most interesting questions get ignored. Questions like “Why do people use language?” or “What causes patriarchy?” aren’t ones we can do much with. Something that does vary, however, is amenable to explanation via comparison. I’m not actually so sure a focus on comparison is always a good idea, but it is a central aspect of sociological methods, so we would do well to understand it.

Those four traits are basic to most methods. Past these commonalities, we will find that different methods have different advantages depending on, most important, what the *process* is (or was) that is of interest to us. Is it social-psychological? Institutional? A historical development? Second, which method is most appropriate will turn on whether the effects of this process are . . . repeatable or not? Generalizable to all people or only to a group? Conscious or not conscious (can you get the information by asking or must you watch)?

Depending on what we think we’re studying, we’re going to take a different approach. And—silly though it sounds, I know—to know what we think we’re studying, we’re going to need to make a few provisional decisions about what we think is out there in the world.

## Things and Concepts

### *What Is Real? What Can Act? What Is a Concept?*

Theory is a funny thing. Among the tricks it can play on us is leading us to devote long periods of our lives to the examination of things that, in our saner moments, we would concede do not exist.

Do you want to argue about what “real” means and start a rumble over realism? I don’t. All we need to do is to use the word “real” to denote the stuff we’re absolutely committed to defending. That means something that probably has most of the following properties. First, we think it’ll still be there if we come back tomorrow (it’s “obdurate”—though we don’t deny that some

phenomena are transitory). Second, we think that other people will be able to see it too (it's "intersubjectively valid"—though we don't deny that sometimes you have to learn to notice certain phenomena). Third, you can study it via a number of different methods (it's "robust under triangulation"—though we recognize that sometimes we don't yet have ways of getting information on people's thoughts other than talking to them, and so on). Something that lacks one of these properties might still deserve our commitment. But something that lacks *all* of them—it comes and goes, not everybody can see it, and only some methods reveal it—that doesn't seem like the kind of thing we call "real," does it? It sounds more like a ghost.

Sometimes we end up chasing ghosts because we are enamored of a theory that makes strong claims about the world. The simplest way in which this messes with our heads comes from what is called "reification" or "the fallacy of misplaced concreteness." In our case, that means that we take a "theoretical" phrase or a concept—something that should really be a shorthand that helps us organize our thoughts about the world—and treat it as if it were a thing. Once it becomes a thing, it is easy for us to imagine that it can "do things" that we include in our explanation. For example, many sociologists are interested in capitalism as a mode of production rooted in the private appropriation of productive capital. Even if we assume that there is a utility to this theoretical construct (which I'll continue to use as an example below), it doesn't mean that capitalism is really a thing that exists somewhere.

There are times when it is going to help to decide, before you begin, what you think is real enough to make things happen. The reason is simple—that's the stuff you need to get data on. Once we've done *that*, we can begin to think methodologically. I'm going to start laying out the conventional understanding of sociological methods. I don't think that this understanding is defensible in *all* aspects, but it is important that you understand it, and appreciate its strengths and limitations, before we go much further.

### *What Is a Unit of Analysis?*

Let me start by quickly going through some pretty conventional language that we'll need. Most folks will tell you that any sociological investigation involves a choice of the *unit of analysis* (UOA). These days, we frequently do comparisons across more than one *case* (or *instantiation*) of the unit of analysis.<sup>1</sup> We generally have a *question* about some sort of variation or

1. This isn't necessarily so; many early sociologists took "society" as the UOA, and they took there to be a single society of interest to them, nineteenth-century European society, within which they made no distinctions. I'm only going to focus on multiple UOA designs here.



differences among instantiations of our UOA. Here are examples: does labor unrest affect a *nation's* employment insurance policies? Do *cities* with higher levels of income inequality have higher rates of crime? Are religiously orthodox *individuals* more or less hostile to immigration?

Very frequently UOAs are nested, in that there are distinct levels of analysis. For example, nations are composed of states or provinces, which are composed of counties, which include towns. And sometimes it helps to see all of these as composed of individuals. Because of this, we frequently refer to the question of the choice of UOA as a choice of the “level” of analysis.

Obviously, the choice of UOA determines the research design. If you're going to compare UOAs, for example, you will miss everything if your choice is wrong. For example, imagine that income inequality *does* lead to increased crime at the level of the *nation* but *not* at the level of the city—say, because the processes have to do with cultural senses of fairness and opportunity and not material opportunism. You could come up with a null finding if you compare cities within the United States. Obvious, true, but still the sort of obvious thing that we overlook as we rush to “get started.”

Finally, there may be theories or questions that we believe to hold at more than one UOA. For example, we may say that increasing income inequality leads to increased crime at *any* level of analysis: town, county, state, or nation, say. While there might be times when this makes sense, it's usually a worrisome signal that we're tossing words around somewhat randomly. Since it's unlikely that the *processes* involved at these different levels could be the same, it seems like we haven't gotten concrete enough yet to know what we should actually be studying. It isn't “theoretical” to be indifferent to the nature of your UOAs.

### *What Can Act?*

This seems like an awful lot of time to spend on such simple terminology, but an ounce of methodological prevention is worth a pound of cure. I emphasized that we need to focus not only on what we are committed to treating as real, but also on what units can *make things happen*. This is important in thinking through the relation between our question, our method, and our units of analysis. What you mean by this “making things happen” is perhaps up to you. If you think in terms of action, you need to ask “what can act here?” If you're thinking in terms of external causality (some things causally affect others), you need to ask: “What is an effective cause here?” And if you think of cascades of linked events, you need to ask: “Which events are part of the chain I care about?”

This is a second part of the fundamental reality check, and even more important, because many of our theoretical shorthands involve attribut-

ing efficacy or causality to things that aren't real, or that are attributes of other things. As we get more concrete, we may realize that our UOAs aren't the entities that we consider to be responsible for making things happen.

In such cases, we frequently designate as "mechanisms" those entities or processes that lead to the differences in our UOAs. For example, we may be interested in why some countries have more militant labor movements than others. Thus the nation is our UOA. We may suspect that it is due to differences in how workers are *paid*. So we want to compare strike hours by payment types. Thus the *firm* becomes our unit of measurement; firms are (or were) nested in countries, in that there are many firms in one country. For each country, we examine the total strike hours (summed over firms) and relate this to the percentage of workers (aggregated over firms) who are paid hourly as opposed to by the piece. Now a firm is a pretty real thing, and the way workers are paid is indeed an *attribute* of the firm. But this attribute cannot itself produce strikes. Only something real can do that, not the attribute of a real thing. It seems silly to say that the firm itself creates the strikes.

So what can act in this scenario? Presumably only the workers at the firms. Note that they are neither our *unit of measurement* (UOM) nor our UOA, but they play a vital role in our investigation. Even though we can't demonstrate it, we need to think about *how* the workers make the relation appear on the level of the nation. Then we may realize that, for example, the firm-level configurations might be only *necessary* (but not sufficient) for strikes. Patterns that would otherwise be confusing or disheartening will make sense to us.

That was an easy example (it's also a real one, from a wonderful book by Richard Biernacki [1997]). But harder ones mess up many decent theoretical projects. For example, we argue that capitalism's need to dispose of surplus products led to the rise of modern advertising. But is capitalism a real thing? Even if it is, it's "need" is an *attribute* of capitalism, and an attribute cannot itself do anything. Does capitalism itself produce modern advertising? What could this mean? Shouldn't we first identify something that is capable of, say, setting up an advertising agency and pounding the pavement to get clients before we make this kind of argument?

At this stage, it's easy to despair and think that the solution is to ignore all theoretical terms and simply operate on the most obvious level possible. That's a mistake; methodological failures come as often from the obvious as from the imaginary. But now we need to turn around, and stop asking "what is real," and ask...

### *What Is a Concept?*

There are some things that are enormously useful in sociological investigations even though they are not real. Some of these we will call concepts.

For our purposes, we can define a concept as a communicable mental heuristic that allows us to process commonalities and differences among real things. In simpler terms, it's something that we use in our heads to process our data—and something we can *share* with others. In sociology, we tend to rely on one type of concept, and a very straightforward type at that. This is the sort of general concept that is produced via *selective abstraction*. This means we select a few features of some existing thing or things, and we exaggerate these features or at least ignore all others. When we use the concept “table,” we focus on an object’s size, shape, and functionality—not what it is made out of. When we use the concept “wood,” however, we are paying attention *only* to what it is made out of.

Now in some cases, we are able to give a formal definition for our concept: “a mammal is any vertebrate the female of which nurses its young via mammary glands.” In other cases, we appear to have *prototypes* that we use to ground the concept, and we link various empirical cases to concepts according to the prototype to which they are closest. It’s actually pretty hard to define what we mean by “tree”—it includes multitrunked woody-stem plants and some grasses (like the palm). But we know what’s a good example of a tree and what’s a bad one.

There’s nothing intrinsically wrong with informal concepts like tree. Nor is there anything intrinsically wrong with folk concepts (like “depression”), nor with specialist ones that actors don’t recognize (like “hegemony”). The problems come not when we construct concepts, but when we let them do heavy lifting that they aren’t capable of. They can *organize* our data. But they can’t, by themselves, explain it, and they certainly can’t *do stuff* out there in the world. The “hegemony” of the ruling class, or a person’s “depression,” can’t actually do anything, except, perhaps, help us organize our thoughts to answer our questions.

In sociology, we tend to ignore the difference between very abstract concepts like “hegemony” and seemingly more concrete ones like “depression.” Whether that’s a good thing or a bad thing, I don’t know, but I want to give some attention to how we try to link these concepts to data, because, when you try to support a claim about concepts using data, your argument is never stronger than its weakest link.

### *Hypothetico-Deductionism*

It’s good not to flee from any encounter with the concrete—something like everyday people’s everyday problems. Still, sociology is a science of generalization. It’s going to involve putting concrete observations in some general conceptual structure. In sociology, we often understand a set of linkages between abstractions (or sometimes between more concrete

terms) as a “model.” The idea of a model is that it is a stripped down and simplified version of reality. So a model necessarily leaves a lot of stuff out, but that doesn’t make it “wrong.” If it “gets at” something (according to criteria to be determined later), then it’s OK.

I think the reason this idea of models became so well loved is that it really works with the way in which we often teach methods, which is a philosophy of science idea called hypothetico-deductivism. According to this vision of science, there is a fundamental difference between theoretical terms and observational terms. We make a hypothesis that pertains to a relation between *theoretical* terms (e.g., “social dislocation leads to existential anxiety”). We then want to *test* whether this is true using data, but to do this, we need to *link* our theoretical terms to observational terms. In America, this last act is often called operationalization.

While this isn’t necessarily the most air-tight theory of science, it has some advantages for sociologists when it comes to thinking through a research design. Most importantly, it should make us realize that just because we *claim* to be measuring something abstract, this doesn’t mean we really are. The link needs to be defended. For example, imagine that you are interested in changes in the political climate of the United States. How can you measure this climate? Perhaps you decide to use newspaper articles. Does a newspaper really reflect the underlying political climate? It’s possible, but it requires a bit more study before making this an assumption.

The hypothetico-deductive system has another advantage for research design. Since we aim to test a theory by the observable results, it tends to force us to think about the consequences of our theoretical claims. In this light, a claim that makes no difference isn’t a very strong one. That doesn’t mean that theories that don’t have consequences that are observably different from their rivals might not have use. But it does mean that this isn’t what *you* want to be doing, at least not now.

But there are disadvantages to hypothetico-deductivism, especially when it becomes ritualized. If others let us get away with piss-poor linkages (“we operationalized alienation by whether or not children had two or more unexcused absences”), we forget about what we are really doing. And in fact, sociology has often thought that just labeling one thing as another magically transubstantiated it. Don’t bother me with reciting history of science. If most of your conclusions come from your labeling, forget it.

And this turns out to be a very common problem for us. This is in part because of our way of thinking about concepts. As I’ve emphasized elsewhere (2015), sociologists are strong believers in nominalism. That means we think that we need to define our terms, as opposed to discovering what

they mean (which is how “realists” think). Thus, in a typical sociology paper we will start out: “In this paper, ‘depression’ will be defined as a persistent mood disorder the severity of which interferes. . . .”

Yet (like most people) we tend to have mental images (prototypes) that affect our interpretation of our categories. The problem is that the way we define our terms can produce a group of observations that is very different from how we think about them. As Joel Best has said, when we think about the gun deaths of children, we’re likely to envision something like two six-year-olds playing with Daddy’s gun. But if we define “child” as “under eighteen,” most of gun deaths are going to be young men who are seventeen years old, with the next most being sixteen-year-olds, then some fifteen-year-olds, and then fourteen, and so on (Best 2012).

For this reason, it’s sometimes easy for us to work with a real dislocation between our theoretical vision on the one hand, and our actual measures on the other . . . and therefore, confusing our labeling of our data with the data themselves. I don’t know if I can *prove* to you that this is avoidable. But I’m going to teach you how to avoid it, and the best way to do this is to spend some serious time thinking about measurement instead of “operationalization.”

## Variables and Measurement

### *Measurement*

At least in my day, bringing up the notion of measurement was often interpreted by many sociologists to mean “stop listening now.” Because we thought that talk about measurement certainly wasn’t relevant to historical sociologists, ethnographers, interviewers, and so on, and even a quantitative sociologist who talked about measurement was some sort of atavistic mental caveman. It sounded like we were pretending to do some sort of white-lab-coat science that we weren’t *really* doing. And we often confused *measures* with *numbers*. But most numbers in sociology don’t come from measuring, they come from counting, and many of the measures that we do make aren’t numbers at all.

So what is measurement? Measurement is when we interact with the world so that we come back with information. The information is usually about attributes of *units* that we are measuring. In sociology, these are often (not always) people (or people-at-some-particular-time). So the information has something to do with the people we are studying, but it also has to do with how we are reaching out to them. For this reason, research is the outcome of interactions, usually between researcher and research subject. These interactions take place in situations that have their

own particular features, and in order to understand the measurements, we need to understand these particular features and what they imply about the process of interaction.

It helps to think of the people we are interacting with as presenting us with *profiles of potentialities for interaction*. We trigger these with our data collection efforts and record the results. That's all well and good, but that means we can't necessarily treat the resulting outcomes as if they were fixed *propensities for action*. That would mean ignoring what *we* did to trigger the response. It's a bit like smacking someone in the back of the head and then, when he turns around red-faced and shouts at you, recording on your chart "person A tends to shout." Even worse would be treating the results as qualities of individuals that they carry around with them all the time ("person A is an angry sort of person").

Does this mean that everything is relative? Sure, in a way, but relativity isn't opposed to objectivity. We want to be writing down that "person A yells when smacked," because this does tell us something about him. Person B might burst into tears and run away, person C turn around and throw a punch, and so on. Interactions produce objective information only when we don't ignore the nature of the interaction. It's a bit similar to a "scratch test" used in mineralogy. You can rank rocks in order of hardness by seeing if *this* one can leave a scratch mark on *that*. It wouldn't be any more objective if you tried to ignore which rock you were scratching with. In our case, this means that, without decent theories of interaction, we could never understand our results. Fortunately, when it comes to theories of interaction, we have some good ones. But as these are going to depend on the specific type of interaction, I'll introduce them as we go through different methods. Here, I'm going to stick with the most general issues having to do with measurement.

**Measurements are relative to the situation that provoked them. That's precisely why they're objective.**

### *Units of Measurement*

I have emphasized that we need to ask what attributes of our units of analysis (UOAs) are of interest to us. For one example, if our units are cities, we might be interested in their degree of economic inequality. We then must ask, are these attributes measurable at this level of analysis? In the example here, the answer is no. To get information about the degree of in-

come inequality, we don't examine the city itself. We examine the people living in this city, get their individual income levels, and then construct a number that tells us the degree of inequality.

Thus we need also to think about a *unit of measurement* (UOM). These aren't always the same thing as our units of analysis. Very often, the relation between our UOAs and UOMs is one of "nesting"—a "one to many" (or "many to one") relation. That is, it may be that the UOMs are "below" the UOAs (in other words, there are many UOMs within any UOA), and we use the UOMs in aggregate form to construct something we consider to be an "attribute" of the UOA. I'd wager that this is the most common relation between UOMs and UOAs (outside of identity) for sociology, partly because, being sociologists, we're often interested in groups, classes, and other forms of aggregations. Indeed, Durkheim basically thought that sociology as a science would take off because of our capacity to compose averages based on measurements of individuals. We frequently refer to such constructions as measures, but in the interest of consistency, I'll assume than anything is only a measure "once," that is, only one unit can be measured for any attribute.<sup>2</sup>

But in other cases, the UOMs are "above" the UOAs (which is to say, there are many UOAs within any UOM). For example, John Markoff (1996) was interested in whether distance from Paris increased the likelihood of peasants' revolting. Our theoretical unit may be individual peasants, but their distance from Paris may only be computed as an attribute of the village they are in.

Finally, in still other cases, we find an imperfect nesting. For example, if we were interested in studying Americans who teach sociology, we could use the membership of the American Sociological Association, which has a high but partial overlap with our target. It's worth keeping this relation between UOMs and UOAs in mind *whenever* we are letting one thing "stand for another" in our research, especially when we are measuring something indirectly. Many of our problems start before we even get to the stage of analysis, and can be solved by thinking through these issues, and coming up with a research design.

### *Front-Loading versus Back-Loading*

There are two types, or at least two poles, of approaches to research design. They define a continuum stretching from one pole to the other. On

2. Now technically, this relation of "nesting" also holds for where our UOA is the individual but our UOM is an individual-at-some-particular-time. We almost always ignore this complication or, if we're a bit cleverer, assume that the UOM is a random draw from a set that constitutes the UOA, but as we'll see in future chapters, this isn't always right.

one side, we have the “stitch-in-timers.”<sup>3</sup> Here we have “front-loaded” our work. We have a clear research design. We give up flexibility and can move much more quickly. This can be *too* fast if the world suddenly throws up a curve in front of you.

At the other pole (I guess they are the “niners”), we have back-loaded our work. It takes almost no time for us to get right into our research. We just have to toss off some proposal to our teacher or to the Institutional Review Board (IRB), and one subway ride later, we’re in the field. Waiting. Wandering. Hoping for something to strike. All the time we saved not having a clear research design comes back in a karma backlash now. So as you can see, it isn’t that either polar solution is perfect. Chances are that you should push yourself more toward the first pole than the second, but if you’ve got your arms clenched tight around the first pole, maybe you need to pry yourself away a bit.

In general, students are best off with a design that has a combination of rigor and flexibility: rigor in constructing a data set—being very clear as to what is in and what is out, being up front about your coding and all that—but flexibility in terms of analyses—if you are guided by a *substantive* question, and not a fetishized methodology, you can change your tactics, rethink your design, in response to how the results evolve. You can develop ad hoc branches of your work to focus on deciding between particular interpretations before you resume your main investigations. This isn’t what we generally teach in methods classes, but *this*, as the pragmatists insisted, is the *real* scientific method—not the “one-shot” hypothesis tests that we will teach you. Never feel guilty for working hard to learn from your data. That’s what it’s all about—answering questions we have about the world.

#### TAKEAWAYS

- You should be willing to defend your terms as either real or useful mental devices, and know which is which.
- You should have a sense of what terms refer to things that you think have sufficient mojo that they can drive what you’re interested in. These things had better be the sort of thing you’re willing to defend as real.
- Don’t be afraid of thinking about measurement—if you don’t have any, it isn’t a good sign.

3. From the old adage, “a stitch in time saves nine.” It means, I only figured out as an adult having to mend my clothes, that if you stitch up your clothes when they first start to come apart, you only need to do a single stitch. Put it off, and you have nine times as much work to do. It’s not about a rip in the fabric of space-time, as I had always assumed.



**If you were going to read more...**

I think you'd do well to look at Arthur Stinchcombe's *Constructing Social Theories*. It's one particular view, but a clear one, and I think you'll learn more from a clear view you disagree with than a muddled one that sounds just right.