Przeworski and Teune (1982): eliminate proper names. However, though these studies may not seek to understand any particular district, they should not ignore—as sometimes is unfortunately done in this tradition—the requirement that the facts about the various districts that go into the general analysis must be accurate.

Other research tries to tell us something about a particular instance. It focuses on the French Revolution or some other "important" event and attempts to provide an explanation of how or why that event came about. Research in this tradition would be unthinkablecertainly uninteresting to most of the usual readers of such researchwithout proper names. A political scientist may write effectively about patterns of relationships across the set of congressional campaigns without looking at specific districts or specific candidates but imagine Robert Caro's discussion (1983) of the 1948 Senate race in Texas without Lyndon Johnson and Coke Stevenson.¹ Particular events such as the French Revolution or the Democratic Senate primary in Texas in 1948 may indeed be of intrinsic interest: they pique our curiosity, and if they were preconditions for subsequent events (such as the Napoleonic Wars or Johnson's presidency), we may need to know about them to understand those later events. Moreover, knowledge about revolution, rebellion, or civil war in general will provide invaluable information for any more focused study of the causes of the French Revolution in particular.

We will consider these issues by discussing "interpretation," a claimed alternative to scientific inference (section 2.1.1); the concepts of uniqueness and complexity of the subject of study (section 2.1.2); and the general area of comparative case studies (section 2.1.3).

2.1.1 "Interpretation" and Inference

In the human sciences, some historical and anthropological researchers claim to seek only specific knowledge through what they call "interpretation." Interpretivists seek accurate summaries of historical detail. They also seek to place the events they describe in an intelligible context within which the meaning of actions becomes explicable. As Ferejohn (in Goldstein and Keohane 1993:228) has written, "We want

social science theories to provide causal explanations of events ... [and] to give an account of the reasons for or meanings of social action. We want to know not only what caused the agent to perform some act but also the agent's reasons for taking the action." Geertz (1973:17) also writes that "it is not in our interest to bleach human behavior of the very properties that interest us before we begin to examine it."

Scholars who emphasize "interpretation" seek to illuminate the intentional aspects of human behavior by employing Verstehen ("emphathy: understanding the meaning of actions and interactions from the members' own points of view" [Eckstein 1975:81]). Interpretivists seek to explain the reasons for intentional action in relation to the whole set of concepts and practices in which it is embedded. They also employ standards of evaluation: "The most obvious standards are coherence and scope: an interpretative account should provide maximal coherence or intelligibility to a set of social practices, and an interpretative account of a particular set of practices should be consistent with other practices or traditions of the society" (Moon 1975: 173).

Perhaps the single most important operational recommendation of the interpretivists is that researchers should learn a great deal about a culture prior to formulating research questions. For only with a deep cultural immersion and understanding of a subject can a researcher ask the right questions and formulate useful hypotheses. For example, Duneier (1993) studied the collective life of working-class black and white men at one integrated cafeteria in Chicago. By immersing himself in this local culture for four years, he noticed several puzzles that had not previously occurred to him. For example, he observed that although these men were highly antagonistic to the Republican party, they articulated socially conservative positions on many issues.

Some scholars push the role of interpretation even further, going so far as to suggest that it is a wholly different paradigm of inquiry for the social sciences, "not an experimental science in search of law but an interpretive one in search of meaning" (Geertz 1973:5). In our view, however, science (as we have defined it in section 1.1.2) and interpretation are not fundamentally different endeavors aimed at divergent goals. Both rely on preparing careful descriptions, gaining deep understandings of the world, asking good questions, formulating falsifiable hypotheses on the basis of more general theories, and collecting the evidence needed to evaluate those hypotheses. The distinctive contribution of science is to present a set of procedures for discovering the answers to appropriately framed descriptive and causal questions.

Our emphasis on the methodology of inference is not intended to denigrate the significance of the process by which fruitful questions are formulated. On the contrary, we agree with the interpretivists that

¹ Nor can we dismiss Caro as someone in another business: a journalist/biographer whose goal differs from that of the social scientist. His work addresses some of the same issues that a political scientist would: What leads to success or failure in an election campaign? What is the role of money and campaign finance in electoral success? What motivates campaign contributors? The discussion focuses on a particular candidacy in a particular district, but the subject matter and the puzzles posed overlap with standard political science.

it is crucial to understand a culture deeply before formulating hypotheses or designing a systematic research project to find an answer. We only wish to add that evaluating the veracity of claims based on methods such as participant observation can only be accomplished through the logic of scientific inference, which we describe. Finding the right answers to the wrong questions is a futile activity. Interpretation based on Verstehen is often a rich source of insightful hypotheses. For instance, Richard Fenno's close observations of Congress (Fenno 1978), made through what he calls "soaking and poking," have made major contributions to the study of that institution, particularly by helping to frame better questions for research. "Soaking and poking," says Putnam in a study of Italian regions (1993:12), "requires the researcher to marinate herself in the minutiae of an institution—to experience its customs and practices, its successes and its failings, as those who live it every day do. This immersion sharpens our intuitions and provides innumerable clues about how the institution fits together and how it adapts to its environment." Any definition of science that does not include room for ideas regarding the generation of hypotheses is as foolish as an interpretive account that does not care about discovering truth.

Yet once hypotheses have been formulated, demonstrating their correctness (with an estimate of uncertainty) requires valid scientific inferences. The procedures for inference followed by interpretivist social scientists, furthermore, must incorporate the same standards as those followed by other qualitative and quantitative researchers. That is, while agreeing that good social science requires insightful interpretation or other methods of generating good hypotheses, we also insist that science is essential for accurate interpretation. If we could understand human behavior only through Verstehen, we would never be able to falsify our descriptive hypotheses or provide evidence for them beyond our experience. Our conclusions would never go beyond the status of untested hypotheses, and our interpretations would remain personal rather than scientific.

One of the best and most famous examples in the interpretative tradition is Clifford Geertz's analysis of Gilbert Ryle's discussion of the difference between a twitch and a wink. Geertz (1973:6) writes

Consider . . . two boys rapidly contracting the eyelids of their right eyes. In one, this is an involuntary twitch; in the other, a conspiratorial signal to a friend. The two movements are, as movements, identical; from an I-am-acamera, "phenomenalistic" observation of them alone, one could not tell which was twitch and which was wink, or indeed whether both or either was twitch or wink. Yet the difference, however unphotographable, be-

tween a twitch and a wink is vast; as anyone unfortunate enough to have had the first taken for the second knows. The winker is communicating, and indeed communicating in a precise and special way: (1) deliberately, (2) to someone in particular, (3) to impart a particular message, (4) according to a socially established code, and (5) without cognizance of the rest of the company. As Ryle points out, the winker has done two things, contracted his eyelids and winked, while the twitcher has done only one, contracted his eyelids. Contracting your eyelids on purpose when there exists a public code in which doing so counts as a conspiratorial signal is winking.

Geertz is making an important conceptual point. Without the concept of "winking," given meaning by a theory of communication, the most precise quantitative study of "eyelid contracting by human beings" would be meaningless for students of social relations. In this example, the theory, which emerged from months of "soaking and poking" and detailed cultural study, is essential to the proper question of whether eyelid contraction even could be "twitches" or "winks." The magnificent importance of interpretation suggested by this example is clear: it provides new ways of looking at the world—new concepts to be considered and hypotheses to be evaluated. Without deep immersion in a situation, we might not even think of the right theories to evaluate. In the present example, if we did not think of the difference between twiches and winks, everything would be lost. If interpretation—or anything else—helps us arrive at new concepts or hypotheses, then it is unquestionably useful, and interpretation, and similar forms of detailed cultural understanding, have been proven again and again.

Having made a relevant theoretical distinction, such as that between a wink and a twitch, the researcher then needs to evaluate the hypothesis that winking is taking place. It is in such evaluation that the logic of scientific inference is unsurpassed. That is, the best way of determining the meaning of eyelid contractions is through the systematic methods described in this book. If distinguishing a twitch from wink were pivotal, we could easily design a research procedure to do so. If, for instance, we believe that particular eyelid contractions are winks imbued with political meaning, then other similar instances must also be observable, since a sophisticated signaling device such as this (a "public code"), once developed, is likely to be used again. Given this likelihood, we might record every instance in which this actor's eyelid contracts, observe whether the other key actor is looking at the right time, and whether he responds. We could even design a series of experiments to see if individuals in this culture are accustomed to communicating in this fashion. Understanding the culture, carefully de-

scribing the event, and having a deep familiarity with similar situations will all help us ask the right questions and even give us additional confidence in our conclusions. But only with the methods of scientific inference will we be able to evaluate the hypothesis and see whether it is correct.

Geertz's wink interpretation is best expressed as a causal hypothesis (which we define precisely in section 3.1): the hypothetical causal effect of the wink on the other political actor is the other actor's response given the eyelid contraction minus his response if there were no movement (and no other changes). If the eyelid contraction were a wink, the causal effect would be positive; if it were only a twitch, the causal effect would be zero. If we decided to estimate this causal effect (and thus find out whether it was a wink or a twitch), all the problems of inference discussed at length in the rest of this book would need to be understood if we were to arrive at the best inference with respect to the interpretation of the observed behavior.

If what we interpret as winks were actually involuntary twitches, our attempts to derive causal inferences about eyelid contraction on the basis of a theory of voluntary social interaction would be routinely unsuccessful: we would not be able to generalize and we would know it.2

Designing research to distinguish winks and twitches is not likely to be a major part of most political science research, but the same methodological issue arises in much of the subject area in which political scientists work. We are often called on to interpret the meaning of an act. Foreign policy decision makers send messages to each other. Is a particular message a threat, a negotiating point, a statement aimed at appealing to a domestic audience? Knowledge of cultural norms, of conventions in international communications, and of the history of particular actors, as well as close observation of ancillary features of the communication, will all help us make such an interpretation. Or consider the following puzzle in quantitative research: Voters in the United States seem to be sending a message by not turning out at the polls. But what does the low turnout mean? Does it reflect alienation with the political system? A calculation of the costs and benefits of voting with the costs being greater? Disappointment with recent candidates or recent campaigns? Could it be a consequence of a change in the minimum age of voting? Or a sign that nothing is sufficiently upsetting to get them to the polls? The decision of a citizen not to vote, like a wink or a diplomatic message, can mean many things. The sophisticated researcher should always work hard to ask the right questions and then carefully design scientific research to find out what the ambiguous act did in fact mean.

We would also like to briefly address the extreme claims of a few proponents of interpretation who argue that the goal of some research ought to be feelings and meanings with no observable consequences. This is hardly a fair characterization of all but a small minority of researchers in this tradition, but the claims are made sufficiently forcefully that they seem worth addressing explicitly. Like the over-enthusiastic claims of early positivists, who took the untenable position that unobservable concepts had no place in scientific research, these arguments turn out to be inappropriate for empirical research. For example, Psathas (1968:510) argues that

any behavior by focusing only on that part which is overt and manifested in concrete, directly observable acts is naive, to say the least. The challenge to the social scientist who seeks to understand social reality, then, is to understand the meaning that the actor's act has for him.

Psathas may be correct that social scientists who focus on only overt, observable, behaviors are missing a lot, but how are we to know if we cannot see? For example, if two theories of self-conception have identical observable manifestations, then no observer will have sufficient information to distinguish the two. This is true no matter how clever or culturally sensitive the observer is, how skilled she is at interpretation, how well she "brackets" her own presuppositions, or how hard she tries. Interpretation, feeling, thick description, participant observation, nonparticipant observation, depth interviewing, empathy, quantification and statistical analysis, and all other procedures and methods are inadequate to the task of distinguishing two theories without differing observable consequences. On the other hand, if the two theories have some observable manifestations that differ, then the methods we describe in this book provide ways to distinguish between them.

In practice, ethnographers (and all other good social scientists) do look for observable behavior in order to distinguish among their theories. They may immerse themselves in the culture, but they all rely on various forms of observation. Any further "understanding" of the cultural context comes directly from these or other comparable observations. Identifying relevant observations is not always easy. On the contrary, finding the appropriate observations is perhaps the most difficult part of a research project, especially (and necessarily) for those areas of inquiry traditionally dominated by qualitative research.

² For the sake of completeness, it is worth noting that we could imagine an altogether different theory in which an eyelid contraction was not a wink but still had a causal effect on other actors. For example, the twitch could have been misinterpreted. If we were also interested in whether the person with the eyelid contraction intended to wink, we would need to look for other observable consequences of this same theory.