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CHAPTER 6

Working with Data: Data Analysis in Qualitative Research

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IN THE PRECEDING chapters we discussed a variety of ways to collect qualitative data, including participant observation, in-depth interviewing, written documents, and a number of creative approaches. In this chapter we turn to a discussion of how qualitative researchers can make sense of and analyze data. We offer strategies and techniques that we have used and that you may find helpful in getting the most out of the data you have collected. We begin with a discussion of the different types of qualitative studies.

NARRATIVES: DESCRIPTIVE AND THEORETICAL STUDIES

All writing, including social science reporting, is a form of narrative. As Richardson (1990b, 20–21) writes, “Narrative is everywhere, present in myth, fable, short story, epic, history, tragedy, comedy, painting, dance, stained glass windows, cinema, social histories, fairy tales, novels, science schema, comic strips, conversation, journal articles.” Both social scientists and novelists use literary devices such as metaphors to tell the story, or narrative, they wish to communicate to readers.

Although any piece of social science writing is a narrative, we can distinguish between descriptive studies, which resemble what people usually

associate with literary writing, and theoretical or conceptual studies. Of course, any good qualitative study, no matter how theoretical, contains rich descriptive data: people’s own written or spoken words, their artifacts, and their observable activities. In participant observation studies, researchers try to convey a sense of being there and experiencing settings firsthand. Similarly, in studies based on in-depth interviewing, researchers attempt to give readers a feeling of “walking in the informants’ shoes”—and seeing things from their points of view. Thus qualitative research should provide “thick description” of social life (Geertz 1983). As Emerson (1983, 24) writes, “Thick descriptions present in close detail the context and meanings of events and scenes that are relevant to those involved in them.”

Descriptive studies are communicated through the data; theoretical studies are communicated through concepts illustrated by data. The *ethnography* is probably the most well known form of descriptive study. In ethnographies, researchers try to paint a picture of what people say and how they act in their everyday lives. Descriptive ethnographies are marked by minimal interpretation and conceptualization. The researcher tells the story not through concepts but through descriptions of events. Although researchers in descriptive studies may try to lead readers to certain conclusions by virtue of what they choose to report and how they report it, readers are free to come to their own interpretations and draw their own generalizations.

In sociology, the classic studies of the Chicago school provide some of the clearest examples of descriptive ethnography. While motivated by a keen interest in social problems, the Chicago school researchers sought to describe in graphic terms the fabric of urban life. Nels Anderson’s *The Hobo* (1923) is a notable case in point. Building on his own experiences as a hobo, participant observation (before the approach was even called that), and documents, Anderson described the hobo way of life as experienced by hobos themselves: their language, favorite haunts, customs, pursuits, personalities, and ballads and songs.

Life histories, as produced by members of the Chicago school and other researchers, represent one of the purest forms of descriptive studies. In the life history, the person tells his or her story in his or her own words: “The unique feature of such documents is that they are recorded in the first person, in the boy’s own words, and not translated into the language of the person investigating the case” (Shaw 1966, 1).

Life histories do not write themselves. The researcher as recorder and editor has a heavy hand in their production. In all studies, researchers present and order the data according to what they think is important. Specifically, in life histories they decide on what to include and exclude, edit the raw data, add connecting passages between remarks, and place the story in some kind of sequence. Further, in conducting their studies, researchers make decisions

about what to observe, ask about, and record that determine what they are able to describe and how they describe it.

Some qualitative sociologists are experimenting with new forms of narrative. The *qualitative autobiography* described in the last chapter is one example. Here researchers tell their own personal stories and try to create in readers subjective understanding of their own experiences and emotions (Ellis and Flaherty 1992). By doing so, they blur the lines between research subject and researcher. *Drama* (Ellis and Bochner 1992; Richardson and Lockridge 1991) and *poetry* (Richardson 1992, 1994) are the most recent additions to the range of qualitative writing. Richardson, who has devoted considerable attention to the narrative production of social science, describes poetry not only as a method of representing human experience but as a device for making visible the researcher's role in constructing knowledge. Although some qualitative researchers (Schwalbe 1995, 1996) question the contribution of drama and poetry to social science knowledge, even a cursory review of major qualitative sociology journals demonstrates the growing popularity of alternative forms of social science narrative.

Most qualitative studies are directed toward building theory. The purpose of theoretical studies is the understanding or explanation of features of social life beyond the particular people and settings studied. In these studies, researchers actively interpret and point out what is important to their audience. They use descriptive data to illustrate their theories and concepts and to convince readers that what the researcher says is true.

Glaser and Strauss (1967) distinguish between two types of theory—substantive and formal (see Chapter 2). The first relates to a substantive area of inquiry, for instance, schools, prisons, juvenile delinquency, and patient care. *Formal theory* refers to a conceptual area of inquiry, such as stigma, formal organizations, socialization, and deviance. In qualitative research, most studies have focused on a single substantive area.

BUILDING THEORY

Since the publication of Glaser and Strauss' influential book, *The Discovery of Grounded Theory* (1967), qualitative researchers have discussed whether the purpose of theoretical studies should be to *develop* or *verify* social theory, or both (see for example Charmaz 1983; Emerson 1983; Katz 1983; Strauss and Corbin 1990). Glaser and Strauss argue that qualitative and other social science researchers should direct their attention to developing or generating social theory and concepts (see also Glaser 1978). Their *grounded theory approach* is designed to enable researchers to do just that. Other researchers, writing from a more positivistic stance, take the position that qualitative

research, just like quantitative studies, can and should be used to develop and verify or test propositions about the nature of social life. The procedure of *analytic induction* has been the principal means by which qualitative researchers have attempted to do this (Cressey 1953; Katz 1983; Lindesmith 1947; Robinson 1951; Turner 1953; Znaniecki 1934). Although we question whether qualitative methods lend themselves to verification and testing, we find the logic behind both grounded theory and analytic induction useful in analyzing qualitative data.

The grounded theory approach is a method for discovering theories, concepts, hypotheses, and propositions directly from data rather than from a priori assumptions, other research, or existing theoretical frameworks. According to Glaser and Strauss (1967), social scientists have overemphasized testing and verifying theories and have neglected the more important activity of generating sociological theory:

Description, ethnography, fact-finding, verification (call them what you will) are all done well by professionals in other fields and by laymen in various investigatory agencies. But these people cannot generate sociological theory from their work. Only sociologists are trained to want it, to look for it, and to generate it. (p. 6–7)

Glaser and Strauss propose two major strategies for developing grounded theory. The first is the *constant comparative method*, in which the researcher simultaneously codes and analyzes data in order to develop concepts. By continually comparing specific incidents in the data, the researcher refines these concepts, identifies their properties, explores their relationships to one another, and integrates them into a coherent theory.

The second strategy proposed by Glaser and Strauss is *theoretical sampling*, which was described earlier in this book. In theoretical sampling, the researcher selects new cases to study according to their potential for helping to expand on or refine the concepts and theory that have already been developed. Data collection and analysis proceed together. By studying different substantive areas, the researcher can expand a substantive theory into a formal one. Glaser and Strauss explain how their grounded theory of the relationship between nurses' estimation of the social value of dying patients and their care of patients can be elevated to a theory of how professionals give service to clients on the basis of social value.

Figure 6.1 summarizes our version of the grounded theory approach. In generating grounded theory, researchers do not seek to prove their theories but merely to demonstrate plausible support for these theories. Glaser and Strauss (1967) argue that key criteria in evaluating theories are whether they "fit" and "work":

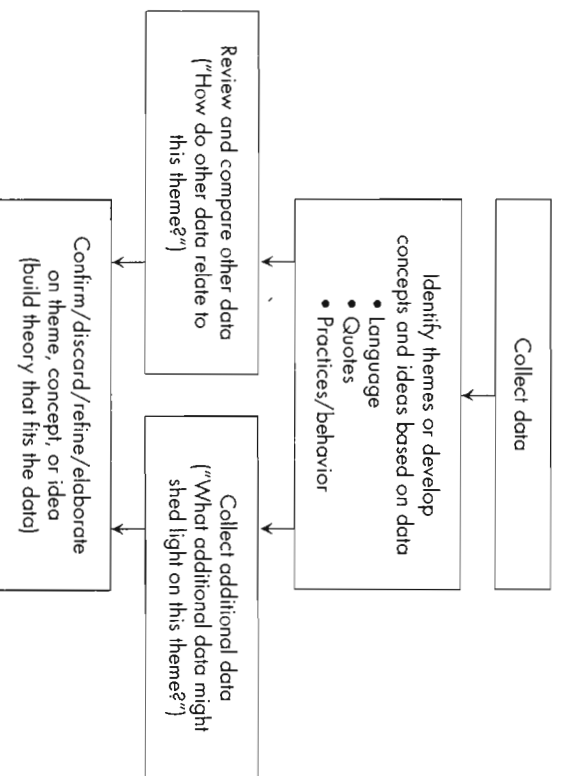


Figure 6.1 One version of the grounded theory approach.

By “fit” we mean that the categories must be readily (not forcibly) applicable to and indicated by the data under study; by “work” we mean that they must be meaningfully relevant to and able to explain the behavior under study. (p. 3)

Ultimately, for Glaser and Strauss, readers must judge the credibility of qualitative studies.

Analytic induction was developed as a procedure for verifying theories and propositions based on qualitative data. As formulated by Znaniecki in 1934, analytic induction was designed to identify universal propositions and causal laws. Znaniecki contrasted analytic induction with “enumerative induction,” which provided mere correlations and could not account for exceptions to statistical relationships. The procedure was refined by Lindesmith (1947) and Cressey (1950, 1953) in their respective studies of opiate addiction and embezzlers and was used by Howard Becker (1963) in his classic study of marijuana users. Katz (1983) has characterized analytic induction, which he refers to as “analytic research,” as a rigorous qualitative method for arriving at a perfect fit between the data and explanations of social phenomena.

The steps involved in analytic induction are relatively simple and straightforward (see Cressey 1950, Denzin 1978, Katz 1983):

1. Develop a rough definition of the phenomenon to be explained.
2. Formulate a hypothesis to explain that phenomenon (this can be based on the data, other research, or the researcher’s insight and intuition).
3. Study one case to see the fit between the case and the hypothesis.
4. If the hypothesis does not explain the case, either reformulate the hypothesis or redefine the phenomenon.
5. Actively search for negative cases to disprove the hypothesis.
6. When negative cases are encountered, reformulate the hypothesis or redefine the phenomenon.
7. Proceed until the hypothesis has been adequately tested (according to some researchers, until a universal relationship has been established) by examining a broad range of cases.

Using this approach, Cressey (1953) arrived at the following explanation of trust violators (a revised formulation of embezzlers):

Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-sharable, are aware that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalizations which enable them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property. (p. 30)

Analytic induction has been criticized for failing to live up to the claims of its early proponents as a method for establishing causal laws and universals (Robinson 1951; Turner 1953). Turner (1953) suggests that analytic induction is fundamentally a method of producing definitions of social phenomena; hence explanations based on analytic induction may be circular.

However, the basic logic underlying analytic induction can be useful in qualitative data analysis. By directing attention to negative cases, analytic induction forces the researcher to refine and qualify theories and propositions. Katz (1983) argues:

The test is not whether a final state of perfect explanation has been achieved but the *distance* that has been traveled over negative cases and through consequent qualifications from an initial state of knowledge. Analytic induction’s quest for perfect explanation, or “universals,” should be understood as a strategy for research rather than as the ultimate measure of the method. (p. 133)

In contrast to the grounded theory approach, analytic induction also helps researchers address the question of generalizability of their findings. If researchers can demonstrate that they have examined a sufficiently broad

range of instances of a phenomenon and have specifically looked for negative cases, they can assert greater claims regarding the general nature of what they have found.

Our approach is directed toward developing an in-depth understanding of the settings or people under study. This approach has many parallels with the grounded theory method of Glaser and Strauss (1967). Insights are grounded in and developed from the data themselves. In contrast to Glaser and Strauss, however, we are less concerned with developing concepts and theories than with understanding the settings or people on their own terms. We do this through both description and theory. Thus sociological concepts are used to illuminate features of the settings or people under study and to aid understanding. Further, our approach probably places greater emphasis on analyzing negative cases and the context in which data are collected than does the approach of Glaser and Strauss, although our method stops short of imposing the systematic search for generalizations and universals entailed in analytic induction.

WORKING WITH DATA

All researchers develop their own ways of analyzing qualitative data. In this section we describe the basic approach we have used to make sense of descriptive data gathered through qualitative research methods.

Data analysis is probably the most difficult aspect of qualitative research to teach or communicate to others. Many people who are new to the methodology are capable of establishing rapport in the field, asking questions, and recording data, but get stuck when it comes to analyzing their data. They read the many books devoted to qualitative data analysis and still have no idea how to make sense of the data they have collected. Having read Glaser and Strauss (1967), they worry about such matters as the difference between a "category" and a "property." They want to know the simple and clear-cut procedures that will enable them to interpret their data. They spend countless hours coding and recoding their data, but come no closer to developing an understanding of the people or settings they have studied.

The reason why so many people find qualitative data analysis so difficult is that it is not fundamentally a mechanical or technical process; it is a process of inductive reasoning, thinking, and theorizing. Even Glaser and Strauss (1967, 251), who devote an entire book to analyzing strategies, point out: "The root sources of all significant theorizing is the sensitive insights of the observer himself." Not all good field researchers are up to the task of significant theorizing, and no one can be trained to have sensitive insights. For many people, the ability to analyze qualitative data comes with experience, especially if they are working with a mentor who helps them learn to see pat-

terns or themes in data by pointing these out. Perhaps the best way to learn inductive analysis is by reading qualitative studies and articles to see how other researchers have made sense out of their data. So, study up—not to find theoretical frameworks to impose on your data, but to learn how others interpret and use data. Books such as *Street Corner Society* (Whyte 1943, 1993), *Tally's Corner* (Liebow 1967), *Gender Play* (Thorne 1983), *Feeding the Family* (DeVault 1991), *Speaking of Sadness* (Karp 1996), *The Urban Villagers* (Gans 1962), *Outsiders in a Hearing World* (Higgins 1980), *Streetwise* (Anderson 1990), and *Having Epilepsy* (Schneider and Conrad 1983) are examples of insightful, clearly written studies.

Because qualitative data analysis is an intuitive and inductive process, most qualitative researchers analyze and code their own data. Unlike quantitative research, qualitative research usually lacks a division of labor between data collectors and coders. Data analysis is a dynamic and creative process. Throughout analysis, researchers attempt to gain a deeper understanding of what they have studied and to continually refine their interpretations. Researchers also draw on their firsthand experience with settings, informants, or documents to interpret their data.

Data analysis, as we see it, entails certain distinct activities. The first and most important one is ongoing discovery—identifying themes and developing concepts and propositions. It is perhaps misleading to have a separate chapter on working with data, since data analysis is an ongoing process in qualitative research. Kvale (1996, 176) refers to what he calls the "1,000-page question" often asked of qualitative researchers: "How shall I find a method to analyze the 1,000 pages of interview transcripts I have collected?" As Kvale argues, the question is posed too late. If you have collected 1000 (or fewer) pages of data and not conducted any analysis, you will be in trouble.

In qualitative research, data collection and analysis go hand in hand. Throughout participant observation, in-depth interviewing, and other qualitative research, researchers are constantly theorizing and trying to make sense of their data. They keep track of emerging themes, read through their field notes or transcripts, and develop concepts and propositions to begin to interpret their data. As their studies progress, they begin to focus their research interests, ask directive questions, check out informants' stories, and follow up on leads and hunches. In many instances researchers hold off on selecting additional settings, people, or documents for study until they have conducted some initial data analysis. Both grounded theory's strategy of theoretical sampling and analytic induction's search for negative cases require this.

The second activity, which typically occurs after the data have been collected, entails coding the data and refining one's understanding of the subject matter. Many of the steps outlined later, such as coding, occur after the data have been collected.

Some researchers prefer to distance themselves from the research prior to engaging in coding and intensive analysis. Practical considerations may also force the researcher to postpone analysis. For example, people sometimes underestimate the amount of time it takes to have taped interviews transcribed.

It is a good idea to begin coding as soon as possible after you have completed the fieldwork or collected the data. The longer you wait, the more difficult it will be to go back to informants to clarify any points or tie up loose ends. Some researchers maintain casual contact with informants throughout data analysis and even after the data have been analyzed and the study is written (see Gallmeier 1991, Miller and Humphreys 1980). Researchers may also have informants read draft reports as a check on interpretations (Douglas 1976; Lincoln and Guba 1985).

The final activity involves attempting to discount findings (Deutscher, Pestello, and Pestello 1993), that is, understanding the data in the context in which they were collected.

DISCOVERY

In qualitative studies, researchers gradually make sense of what they are studying by combining insight and intuition with an intimate familiarity with the data. As noted earlier, this is often a difficult process. Most people inexperienced in qualitative research have difficulty recognizing patterns in their data. You must learn to look for themes by examining your data in as many ways as possible. There is no simple formula for identifying themes and developing concepts, but the following suggestions should get you on the right track.

Read and Reread Your Data

Collect all field notes, transcripts, documents, and other materials and read through them carefully. Then read through them some more. By the time you are ready to engage in intensive analysis, you should know your data inside and out.

As suggested in the chapter on fieldwork, it is always a good idea to have someone else read through your data. An outside reader can sometimes notice subtle aspects that elude the researcher.

Keep Track of Hunches, Interpretations, and Ideas

You should record any important idea that comes to you as you read through and think about your data. Keep a notebook or have a file folder handy for scribbled notes taken when an idea strikes you. In participant observation, researchers sometimes use observer's comments to note ideas and record

interpretations. As you read through your data, you can also make notations in the margins.

Look for Emerging Themes

You must force yourself to search through your data for emerging themes or patterns: conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs (Spradley 1980). Do not be afraid to identify tentative themes. Just do not develop a stake in any particular idea until you have had a chance to hold it up to experience and check it out.

Some patterns will stand out in your data. In Taylor's institutional study, physical restraints, pay, cleaning the ward, medications, and programming were frequent conversation topics. The attendants' vocabulary included terms such as *low grade*, *working boy*, and *tripping time*.

Other patterns will not be so apparent. You will have to look for deeper meanings. In his study *Stigma*, Goffman (1963) quotes a fictitious letter that is rich in sociological understanding and compassionate in human terms. This letter can be used to demonstrate how themes can be identified in data:

Dear Miss Lonelyhearts—

I am sixteen years old now and I don't know what to do and would appreciate it if you could tell me what to do. When I was a little girl it was not so bad because I got used to the kids on the block making fun of me, but now I would like to have boy friends like the other girls and go out on Saturday nites, but no boy will take me because I was born without a nose—although I am a good dancer and have a nice shape and my father buys me pretty clothes.

I sit and look at myself all day and cry. I have a big hole in the middle of my face that scares people even myself so I can't blame the boys for not wanting to take me out. My mother loves me, but she cries terrible when she looks at me.

What did I do to deserve such a terrible bad fate? Even if I did do some bad things I didn't do any before I was a year old and I was born this way. I asked Papa and he says he doesn't know, but that maybe I did something in the other world before I was born or that maybe I was being punished for his sins. I don't believe that because he is a very nice man. Ought I commit suicide?

Sincerely yours,

Desperate

Quite a few themes may be seen here. The first is despair. "Desperate" says she looks at herself and cries and asks whether she should commit suicide; the signature itself reflects this state of mind. The next theme relates to trying to find an explanation for her situation. "What did I do," she asks, "to deserve such a terrible bad fate?" She goes on to speculate about what she did in "the other world" and her father's sins. A third theme, which is somewhat more subtle, has to do with the meanings of physical stigma at different times in a person's life. "It was not so bad" when she was a little girl, but now

that she has reached adolescence, when other girls have boyfriends and go out on Saturday nights, it is unbearable. A final theme relates to how "Desperate's" other qualities do not overcome the fact that she does not have a nose. That she may be a good dancer, have a nice shape, and wear pretty clothes does not get her any dates.

Construct Typologies

Typologies, or classification schemes, can be useful aids in identifying themes and developing concepts and theory. One kind of typology relates to how people classify others and objects in their lives. Taylor constructed a typology of how attendants classify residents by listing the terms used by the attendants to refer to their charges: *hyperactives, fighters, spastics, pikers, runaways, pests, dining room boys, working boys, and pets*.

The other kind of typology is based on the researcher's own classification scheme. In Taylor's institutional study, attendants frequently talked about the need to control residents. By examining themes in his data in light of this concept, Taylor used the phrase *control measures* to refer to the various ways attendants attempted to control residents' behavior: constant supervision of residents, restrictions on residents' freedom of movement, limiting residents' access to objects and possessions, physical restraining devices, drugging, offering residents rewards and privileges, physical force, work duty, and others.

By developing typologies, you begin to make conceptual linkages between seemingly different phenomena. This, in turn, helps you to build theory.

Develop Concepts and Theoretical Propositions

It is through concepts and propositions that the researcher moves from description to interpretation and theory. Concepts are abstract ideas generalized from observational, interview, or other data. In qualitative research, concepts are sensitizing instruments (Blumer 1969; Bryn 1966). *Sensitizing concepts*, according to Blumer (1969, 148), provide a "general sense of reference" and suggest "directions along which to look." Blumer proceeds to explain that sensitizing concepts are communicated by "exposition which yields a meaningful picture, abetted by apt illustrations which enable one to grasp the reference in terms of one's own experience." Concepts are used to illuminate social processes and phenomena that are not readily apparent through descriptions of specific instances. Stigma is a powerful example of a sensitizing concept. When we think of stigma as a blot on one's moral character, and not merely a physical abnormality, we are better able to understand what "Desperate," quoted by Goffman (1963), experiences and to relate her experiences to those of others.

Developing concepts is an intuitive process. It can be learned, but not formally taught. However, here are some places to start. First, look for words

and phrases in informants' own vocabularies that capture the meaning of what they say or do. Concepts from informants are sometimes referred to as "emic" or concrete concepts: "... the concrete concept is derived indigenously from the culture studied; it takes its meaning solely from that culture and not from the scientist's definition of it" (Bryn 1966, 39). For example, in Taylor's study of the Duke family, people talk about themselves as being "on disability," but not as being disabled. By carefully analyzing how people used this language in different contexts, Taylor discovered that being "on disability" is contrasted with being "on welfare." It refers to the source of one's government check, but does not bring with it a potentially stigmatizing identity as a disabled or retarded person.

Second, as you note a theme in your data, compare statements and acts with one another to see whether there is a concept that unites them. Glaser and Strauss (1967, 106) point out that this comparison can usually be made from memory. In Taylor's study, attendants took precautions to avoid getting caught violating institutional rules. For example, they placed a "watchdog" at the door to warn them of the arrival of supervisors or visitors and they hit residents in such a way as not to leave marks. Taylor came up with the concept of "evasion strategies" to refer to these activities. Once he developed this concept, he noticed that other activities, such as "fudging" records, were related to these strategies.

Third, as you identify different themes, look for underlying similarities between them. When you can relate the themes in this manner, see whether there is a word or phrase that conveys how they are similar. Thus Goffman's (1959, 1961) concept of "fronts" applies equally to themes related to how institutional officials maintain grounds and how they manage media relations.

A *proposition* is a general statement grounded in the data. The statement that "Attendants use evasion strategies to avoid getting caught violating institutional rules" is a proposition. Whereas concepts may or may not fit, propositions are either right or wrong, although the researcher may not be able to prove them.

Like concepts, propositions are developed by poring over the data. By studying themes, constructing typologies, and relating different pieces of data to each other, the researcher gradually comes up with generalizations. Taylor came up with the proposition that attendants define residents according to whether the residents help or hinder the attendant's own custodial work. Whereas teachers might view people with mental retardation in terms of their learning characteristics or physicians might view them according to their medical etiologies (for example, Down syndrome, organic brain damage, fragile X syndrome), attendants' definitions of residents reflect their concern with ward order and cleanliness.

This proposition was derived from attendants' own typology of residents. By looking at attendants' terms for and comments about residents, Taylor

discovered that attendants classify residents according to broad categories related to their practical, day-to-day concerns: *control problems* (residents who get into trouble); *custodial problems* (those who create cleanup work); *supervisory problems* (those who require constant surveillance); *authority problems* (those who resist attendants' authority and control); *special processing* (those who require special treatment and work); *helpers* (those who do attendants' work for them); and *pets* and *no problems* (those who do not cause any problems).

Figure 6.2 summarizes how Taylor moved from a listing of terms attendants used to a typology and then to a proposition about how attendants define residents. Of course, this figure captures the end product of Taylor's theorizing. The process began with Taylor paying attention to attendants' language and asking the question: "What do these terms have in common?" Early on in his study, Taylor came up with the following hunch: "Attendants define residents according to the problems they create for them." Yet this did not adequately capture all of the data. "Helpers" stood out as an exception; and, by examining such negative cases, Taylor refined the proposition to more accurately portray attendants' perspectives.

Read the Literature

Qualitative researchers begin their studies with minimal commitment to a priori assumptions and theory (Glaser and Strauss 1967). Toward the latter stages of your research, you will be ready to start familiarizing yourself with literature and theoretical frameworks relevant to your research.

Other studies often provide fruitful concepts and propositions that will help you interpret your data. It is not uncommon to find that the best insights come from studies of a totally different substantive area. For instance, in the study of the Duke family, some of the most useful literature came not from disability studies but from research on support networks among poor African-American mothers (see for example Stack 1974).

You should be careful not to force your data into someone else's framework. If concepts fit your data, do not be afraid to borrow them. If they do not, forget about them.

How you interpret your data depends on your theoretical assumptions. It is important to expose yourself to theoretical frameworks during the intensive analysis stage of the research. Our own theoretical framework, symbolic interactionism, leads to looking for social perspectives, meanings, and definitions. Thus the symbolic interactionist is interested in questions such as the following:

- How do people define themselves, others, their settings, and their activities?
- How do people's definitions and perspectives develop and change?

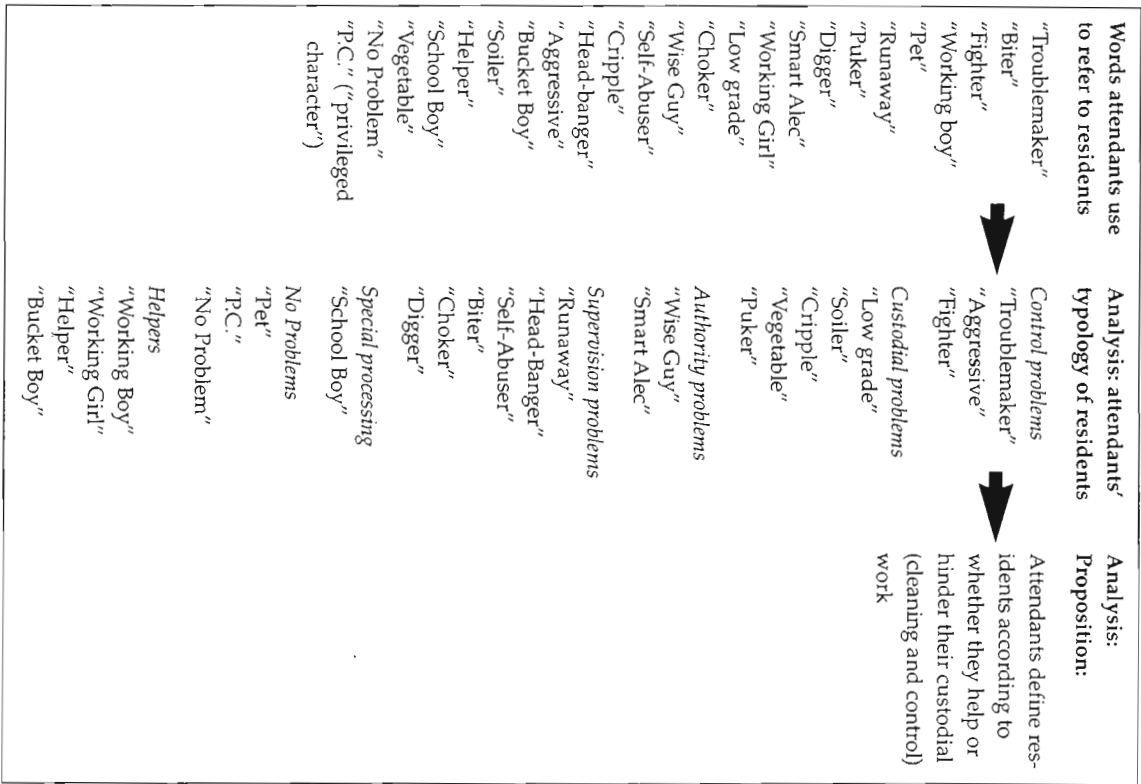


Figure 6.2 Analysis: constructing a typology and forming a proposition: example from a study of institutional attendants.

- What is the fit between different perspectives held by different people?
- What is the fit between people's perspectives and their activities?
- How do people deal with the discrepancy between their perspectives and activities?

Although most researchers align themselves with a specific theoretical framework, it is standard to borrow from diverse frameworks to make sense of data.

Develop Charts, Diagrams, and Figures to Highlight Patterns in the Data

Charts, diagrams, and figures can serve as useful aides in exploring patterns in your data (Spradley 1980). Sketch out potential relationships between different slices of data and see whether this helps you come up with new understandings.

In their study of staff-to-parent communication on hospital neonatal units, Bogdan, Brown, and Foster (1982) developed the diagram shown in Figure 6.3 to depict the staff's conceptual scheme of patients. Words in quotes refer to those consistently used on the units. Those without quotes are the researchers' phrases and represent categories that the staff members do not have words for but that are evident by the way they talk (e.g., "This kind of infant") and act. Although staff members classify infants according to their chances for survival within minutes of their arrival on the units, phrases such as "You can never really tell" dominate their communication with parents.

Early in Taylor's study of the Duke family, he noticed that Bill and Winnie make new friends easily and sometimes become close friends, even best friends, with others in a matter of weeks. Before long, however, they invariably have a falling-out with these friends and become distanced from them. A snapshot of Bill and Winnie's social relations would leave the impression of a succession of short-term, superficial relationships, as has been reported by other researchers among poor people (see for example Liebow 1967). But this would be misleading, because sooner or later the same people show up again at the Dukes' home, and Bill and Winnie become friendly with them again. The same pattern seems to repeat itself over and over again.

To try to make sense of the Dukes' social relations, Taylor charted their relationships with family members and friends with whom they had appeared to be the closest at one time or another over a period of several years. Using concentric circles to roughly approximate closeness and distance, Taylor came up with diagrams such as the one contained in Figure 6.4. This depicts Bill and Winnie's relationship with Lisa and Gary, a couple with three children, whom they have known for a number of years. Around the time Taylor first met the Dukes, Lisa and Gary were evicted from their home, and the Dukes took them in. For a while, the two families did everything

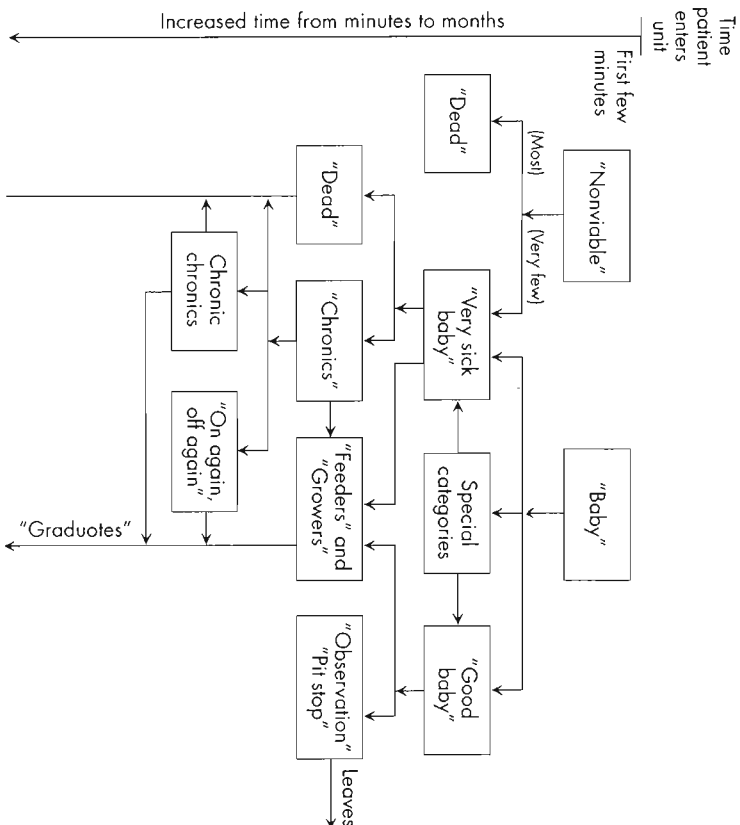


Figure 6.3 Analytical diagram: the staff's classification of infants on a neonatal unit.

together, but then Bill and Winnie had an argument with Lisa and Gary and Bill threw them out of their home. A month later, Bill and Winnie became close to Lisa and Gary again, only to have another falling-out the following month. As shown in Figure 6.4, this pattern continued for years.

On the basis of his analysis, Taylor came to understand social relations within the Dukes' social network in terms of an ebb and flow between closeness and hostility. Relations are characterized by mutual support (for example, taking in homeless people, lending money, doing favors) at one point in time, but bitter feuds (arguments, banishing people from one's home, reporting people to child abuse agencies) at another. Taylor theorized that mutual support and feuds are merely two sides of the same coin and reflect the tenuous social and economic status of the Dukes and other members of their social network.

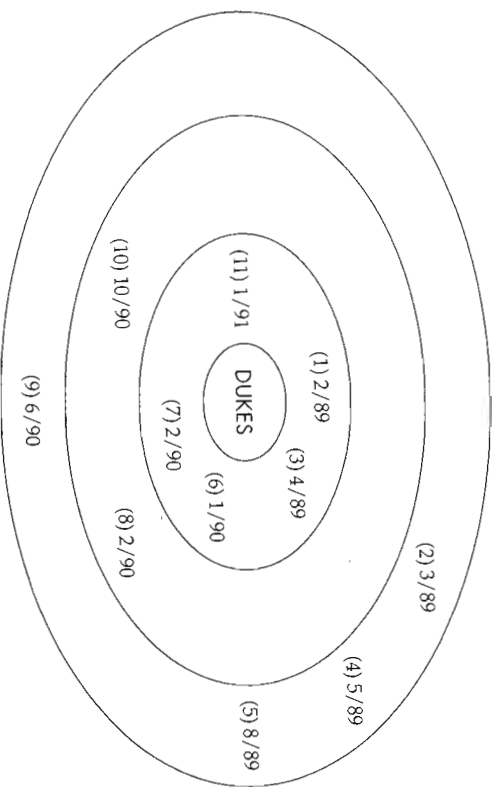


Figure 6.4 Analytic diagram: the ebb and flow of relations—
Lisa and Gary in the Dukes' network.

Proximity to the middle circle indicates closeness to the Duke family. The numbers/dates refer to Lisa's and Gary's (another family) the closeness to or distance from the Dukes of Lisa and Gary (another family) at different points in time.

Write Analytic Memos

Throughout the course of your study, you should stand back from your data and write analytic memos on what you think you are learning. Charmaz (1983) describes a process of writing, sorting, and integrating memos for developing grounded theories. You can write memos that attempt to summarize all of the major findings of your study or that comment on specific aspects of your study. Memo writing also provides an opportunity for you to think about what additional data you want to collect. If you have written memos throughout the course of your study, you will find these extremely helpful when you sit down to write your study. In some cases, entire sections of your study will have already been written.

Memo writing is especially useful in any kind of team or collaborative research. Memos help keep researchers on top of what their team members are learning and thinking.

CODING

In qualitative research, coding is a way of developing and refining interpretations of the data. The coding process involves bringing together and ana-

lyzing all the data bearing on major themes, ideas, concepts, interpretations, and propositions. What were initially general insights, vague ideas, and hunches are refined, expanded, discarded, or fully developed during this process. Here are some strategies that should help you get started in coding your data.

Develop a Story Line

We have always found it helpful to develop a story line to guide theorizing and analysis. The story line is the analytic thread that unites and integrates the major themes in a study. It is an answer to the question, "What is this a study of?"

Perhaps the best way to develop the story line is to come up with a sentence, short paragraph, or phrase that describes your study in general terms. The titles and subtitles of qualitative studies sometimes do this. For instance, the title *Making the Grade: The Academic Side of College Life* (Becker et al. 1968) tells us about the importance of grades to students; the title *Cloak of Competence: Stigma in the Lives of the Mentally Retarded* (Edgerton 1967) communicates the idea that people labeled mentally retarded try to avoid stigma; *Gender Play: Girls and Boys in School* (Thorne 1983) captures Thorne's interest in the social construction of gender on school playgrounds.

Your coding scheme should be based on what you want to write—the theory or sociological story you want to communicate. Many people start coding data without any idea of how they will write the study. As a result, the coding scheme lacks coherence and the researchers waste their time systematically coding data they will never use. When they do try to start writing, they are at a total loss on how to make disparate pieces fit together.

A story line will help you decide what concepts and themes you want to communicate in your study and how your data should be organized and coded. It is useful to think about coding in terms of writing a book (which many people will be trying to do literally). Decide on the major focus of the book, or what we have called the story line. Then, on the basis of the themes you have identified and your analytic memos, decide on what chapters should be in the book, keeping in mind that each chapter must relate to the story line. This will give you the basic structure for your coding scheme.

List All Major Themes, Typologies, Concepts, and Propositions

On the basis of your ongoing analysis, list the major themes in your data as well as your own ideas. Be as specific as possible. Some themes will be specific, and some ideas or concepts will be fully developed. Others will be tentative and vaguely formulated. For example, you may find recurring conversation topics that seem important, although you do not fully understand their meaning or significance.

After you have listed themes, see how they relate to your story line and where they fit into your hypothetical chapter outline. You will find that some themes overlap or relate conceptually and that you will be able to collapse them under broader headings. Some themes will not relate to your story line; these can be ignored. Others may seem relevant even though you are not sure where exactly they fit; you will want to code and analyze these.

At this point in your analysis, you will have a master list of coding categories. The number of coding categories will depend on the amount of data you have and the complexity of your analysis. In his job training study, Bogdan coded his data according to approximately 150 categories. Taylor used roughly 50 categories in his study of institutional attendants. His coding scheme included well-developed propositions ("attendants discount IQ as an indicator of intelligence") and topics of conversation (what attendants say about "programming").

Figure 6.5 lists the initial coding categories for Taylor's study of the Duke family, although this study continues and the coding scheme is being refined over time.

Code Your Data

Coding can be done in different ways, but it usually involves assigning a symbol or number to each coding category. Go through all field notes, transcripts, documents, and other materials indicating which data fit under which coding categories. Code both direct statements and indirect observations. For example, under the theme of *control* in the institutional study, Taylor coded both attendants' comments ("You gotta control them or they'll end up running this place") and his own observations (attendants tying residents in bed at night).

As you code your data, refine the coding scheme; add, collapse, expand, and redefine the coding categories. The cardinal rule of coding in qualitative analysis is to make the codes fit the data and not vice versa. Record any refinements in your master list of coding of categories.

You will notice that some pieces of data fit into two or more coding categories. These should be coded according to all relevant categories.

You should code both positive and negative incidents related to a theme or coding category. As Miles and Huberman (1994), using a statistical metaphor, write:

Any given finding usually has exceptions. The temptation is to smooth them over, ignore them, or explain them away. But *the outlier is your friend*. . . . It not only tests the generality of the finding but also protects you against self-selecting biases, and may help you build a better explanation. (p. 269)

The exceptional case or negative example can help you refine your interpretations. Two related examples from the institutional study illustrate this.

LIFESTYLE	RELATIONS WITH FAMILY AND FRIENDS
Housing <ul style="list-style-type: none"> • Housing moves • Evictions 	Perspectives on Family and Friends
Housekeeping	Family Gatherings
Income	Relations
Work <ul style="list-style-type: none"> • Winnie's jobs 	Favors <ul style="list-style-type: none"> • Taking people in • Debts to others
Family Purchases/Spending <ul style="list-style-type: none"> • Bill's vehicles • Sammy's vehicles 	Fends/Arguments <ul style="list-style-type: none"> • Reporting others to agencies • Bill's reports of others sabotaging his vehicles
Family's Charitable Giving	
Leisure/Hobbies	SOCIAL SERVICES AND GOVERNMENT PROGRAMS
Family Pets	SSI and Social Security
Child Rearing	Welfare
DISABILITY	"Children's Division"
Disability Terms (e.g., "on disability," "retard," "crazy," "handicapped," "crippled," "medical problems")	Food Banks
	Disability Programs
Disability Labels from Agencies	School
Winnie's and Bill's Perspectives on Their Children	Neighborhood Groups

Figure 6.5 Analysis: initial coding categories in the study of the Duke family.

In analyzing the proposition that attendants discount IQ as an indicator of intelligence, Taylor found both supportive ("You can't trust IQ") and non-supportive ("You can't teach him that much because his IQ is too low") statements. This led to a deeper understanding and more sophisticated interpretation of attendants' perspectives: attendants distrust professional techniques such as IQ testing, but they may refer to these techniques to justify their own actions.

Attendants viewed residents as severely limited in their potential for learning. "These here are all low grades" and "You can't teach them nothing" were typical comments. In reviewing his data, Taylor came across a number of statements that countered this proposition. One attendant, who usually denigrated residents' intelligence, commented on one occasion, "Yeah, they're dumb like a fox," implying that residents were smarter than they looked. Exploring the meaning of these statements, Taylor discovered that attendants described residents as "smarter than they look" when it came to scolding or punishing them. They were saying that residents "know better" than to cause problems and should be punished for their behavior. These statements were made to account for or justify attendants' treatment of residents. What initially appeared to be a contradiction was resolved through the analytic distinction between *perspectives*—how people view their world—and *accounts*—how people justify their actions to themselves and others. Although attendants may have genuinely viewed residents as severely limited intellectually, they expressed an opposite view when it was expedient to do so.

In qualitative data analysis, most researchers are not concerned with the reliability of their coding procedures as commonly thought of in quantitative research. A coding scheme can be thought of as a personal filing system. Place data in the code—or file folder, to continue the analogy—along with related data in which you see conceptual similarities. Coding is intended to help you develop insights and generate theoretical understandings, not to produce frequency counts to prove your hypotheses.

Sort the Data into the Coding Categories

Sorting data is a noninterpretative, mechanical operation (Drass 1980). Here the researcher assembles all the data coded according to each category. Before the advent of computers, qualitative researchers did this manually, which usually entailed cutting up an extra set of field notes, transcripts, and other materials and placing data relating to each coding category in a separate file folder or manila envelope. Some researchers still prefer to sort their data this way.

Today, of course, now that practically every researcher has a personal computer, computer software programs for coding qualitative data are becoming increasingly popular. A number of books are available that deal

exclusively with software for qualitative data analysis (Fielding and Lee 1991; Kelle 1995; Weitzman and Miles 1995). Popular software programs for qualitative analysis include The Ethnograph (Seidel, Kjolseth, and Seymour, 1988), QUALPRO (Blackman 1993), and Q.S.R. NUDIST (Replee Pty Ltd. 1994).

As Miles and Huebnerman (1994) point out, the question "What's the best program?" has no answer in the abstract. The answer depends on how comfortable you are with computers and what you want to use the software to do. Minimally, if you are using software for data analysis, you will want to be able to code and retrieve words, sentences, paragraphs, and segments of data. When you code qualitative data, whether manually or through computer software, you not only code quotes and observations but include the context (for example, your questions in addition to the informant's answers) as well. It is also useful to know what set of field notes or transcripts data came from; you should select software with this in mind. Software also exists that can enable you to develop and test propositions and conduct frequency counts.

It is easy to be enamored with computer-aided data analysis. Quantitative researchers are especially likely to use software to make qualitative data appear scientific; however, this imposes a foreign mind-set on qualitative reasoning. A word processor can make writing easier and more efficient, but it cannot make you a better writer. Computer software can serve as a useful "mechanical clerk" (Drass 1980), but there is no substitute for the researcher's insight and intuition in theorizing and interpreting data.

In his study of the Duke family, Taylor is using a different approach than either cutting up field notes or coding with computer software. Having identified the major themes in his study to date, he is going through each set of field notes and briefly, in a short phrase, noting data potentially bearing on themes (Notes #6 "threw out Lisa and Greg"; Notes #40 "Winnie helped mother move"). Then, for each theme, he is recording these brief notations found through his field notes. Thus, under the theme *disability*, Taylor has numerous pages with notations such as the following:

- #5 Bill—SSI-seizures—can't work but can drive a car
- #6 Bill, his sister, and brother institutionalized
- #7 Cindy's book, "Your handicap"
- "medical conditions"
- Winnie-sheltered workshop
- Bill—"probation"
- #11 Bill—"on disability"

Though time-consuming, this process has helped Taylor commit to memory data relating to major themes. In writing about the Duke family, he has

also found it easier to work with a smaller number of pages with brief summary statements than with a mass of verbatim quotations and observations. The only hard-and-fast rule of coding is: do what makes sense to you and helps you theorize.

Compare the Data and Refine Your Analysis

Coding and sorting your data enables you to analyze together all data relevant to a theme, concept, or proposition. This is where Glaser and Strauss' (1967) constant comparative method comes into play. By comparing different pieces of data you refine and tighten up your ideas and gradually move to a higher level of conceptualization. To take a simple example, you move from quotes and observations such as "John said, 'You have to let them know who's boss'" and "Attendants keep possessions and objects locked away in a storage room to keep them from residents" to analytic propositions such as "Maintaining ward order and control is a pervasive concern among attendants." Since this is an inductive and intuitive process, there are no simple procedures or techniques for this kind of analysis. You may find it helpful to ask yourself questions like: "What do these quotes or observations have in common?" "What's going on here?" "What does this tell me about how people view their world?" "How do these themes relate to each other?" To the extent that you have written analytic memos and recorded ideas throughout your study, your task will be much easier here.

By analyzing your data in this fashion, you will likely find that some themes that were once vague and obscure will be clearly illuminated. Other concepts or ideas will not fit the data, and some propositions will not hold up. You should be prepared to discard these and develop new ones to accommodate the data.

There are no guidelines in qualitative research for determining how many instances are necessary to support a conclusion or interpretation. This is always a judgment call. The best insights sometimes come from a small amount of data. Glaser and Strauss (1967) argue that a single incident is sufficient for developing a conceptual category for grounded theory.

How you integrate data analysis and writing is a matter of personal preference. Some people prefer to conduct all of their coding, sorting, and analysis before they begin writing a single sentence. Others wait to analyze data until they are ready to write a specific section or chapter.

DISCOUNTING DATA

The final activity in qualitative analysis is what Deutscher (1973) and Mills (1940) call *discounting* the data—interpreting data in the context in which

they were collected. As Deutscher (1973) points out, all data are potentially valuable if we know how to assess their credibility:

We do, of course, routinely discount history or biography according to what we know about the author. . . . We do not discard reports merely because of biases or flaws of one sort or another. If we did, there would be no history. It is all presented by men who have some sort of stake in the matters of which they write, who are located somewhere in their own society (and tend to see the world from that perspective), and whose work is more or less open to methodological criticism. This same observation can be made of all discourse, including social science research reports. (p. 5)

All data must be discounted in this sense. You have to look at how the data were collected in order to understand them. You do not discard anything. You just interpret the data differently depending on the context.

As a check on their analysis and interpretations, Becker, Geer, and Hughes (1968) and Becker et al. (1961) systematically compare their data and provide statistical breakdowns according to such factors as volunteered versus directed statements or whether people made a statement alone or in the company of others. This probably reflects the era in which they conducted their research. In the 1950s and 1960s especially, qualitative research was strongly influenced by positivist concepts of validity and reliability, and many researchers tried to justify qualitative studies according to standards associated with quantitative research. Today, few qualitative researchers would attempt to validate their interpretations through quasi-statistics. Proof is illusive in qualitative research.

Although we believe that it is important to examine data in the context of how they were collected, an informal review should be sufficient for most researchers. There are different questions to ask about how your data were collected.

Solicited or Unsolicited Statements

Although qualitative researchers usually try to let people talk about what is on their minds, they are never totally passive. They ask certain kinds of questions and follow up on certain topics. By doing so, they solicit data that may not have emerged on their own.

You should look at whether people say different things in response to your questions than they do when talking spontaneously. Of course, you would not throw out statements simply because you elicited them. A good qualitative researcher sometimes gets people to talk about things they would otherwise keep hidden or never think to mention. Further, as DeVault (1990) points out, people are often unable to articulate some of their experiences

and feelings, and the researcher must help them come up with the words. If you find that people say different things in response to direct questions than they do otherwise, then this becomes a matter for further reflection and deeper interpretation. A response to a direct question means *something*, but you cannot necessarily take it at face value. For example, the one time Taylor asked an attendant directly about abuse on his ward he roundly condemned it; yet this attendant routinely engaged in acts that could be defined as abusive. People may make certain statements because they represent the "right" thing to say, or they may think about certain acts differently in the abstract as opposed to in specific situations.

Your Role in a Setting

Most participant observers try to minimize their effects on the people they are studying until they have grasped a basic understanding of the settings. In the chapter on fieldwork we urged observers to "come on slow" during the early stages of the research. As we noted in that chapter, participant observers almost always influence the settings they study.

Especially during the first days in the field, informants may be cautious in what they say and do. They may even try to "put on" the observer. Attendants admitted to Taylor that they did many things differently when he first started to visit the ward. One attendant explained how they reacted to outsiders:

We usually know when someone's comin'—an hour or so beforehand. They let us know when someone's coming so we can put some clothes on 'em—make sure they're not bare-assed or jerkin' off when someone comes up here. I had some visitors up here today . . . They asked me a bunch of questions, I answered 'em, but I wasn't gonna overdo it. You know? I wasn't gonna tell 'em everything.

It is important to try to understand your effects on a setting. As Emerson (1981, 365) writes, the participant observer must try "to become sensitive to and perceptive of how one is perceived and treated by others." One way to do this is to look at how people reacted to you at different times in the research. In his institutional study, Taylor noticed that attendants reacted differently to him at different points in his study. Most initially seemed guarded in his presence but over time openly said and did things that they ordinarily hid from other outsiders. By comparing data collected at different points in the research, the researcher is better equipped to examine how informants' reactions to his or her presence may have influenced what they said and did.

Who Was There?

Just as an observer may influence what an informant may say or do, so too may other people in a setting. For example, attendants act differently around supervisors than they do among themselves; teachers may say something

among themselves that they would not say to their principal. You should be alert to differences between what people say and do when they are alone as opposed to when others are around. This may help you understand apparent discrepancies in your data.

Direct and Indirect Data

When you analyze your data, you code both direct statements and indirect data bearing on a theme, interpretation, or proposition. The more you have to read into your data to draw inferences based on indirect data, the less sure you can be about whether you have gotten things right (Becker and Geer 1957). Needless to say, a keen insight based on indirect inference is worth much more than a commonsense conclusion.

Who Said What, Did What?

There is a danger of generalizing about a group of people on the basis of what one or a few of them say or do. Some participant observers are so taken in by key informants, so dependent on such informants for information, that they end up with a selective view of a setting. One talkative person can produce reams of data that appear throughout the field notes or transcripts.

For this reason, you should pay attention to the sources of the data on which you base your interpretations. Key informants can provide you with critical insights, but you need to distinguish perspectives held by one person from those shared in common among members of a setting. When we write our studies, we usually try to inform readers as to who said and did what ("one informant," "some people," "most informants," and so on).

Member Checks

Some qualitative researchers use formal *member checks* to refine their interpretations and establish the credibility of their studies (Kvale 1996; Lincoln and Guba 1985; Manning 1997). Through member checks, informants may be asked not only to comment on the researcher's interpretations but to review draft case studies as well. Lincoln and Guba even recommend that researchers assemble a panel of informants to discuss draft reports at the conclusion of a research project. Writing in a different vein, some researchers associated with postmodernism, such as Richardson (1990b), advocate new forms of collaborative research in which researchers relinquish their claim to authority as all-knowing purveyors of objective truth.

Any interpretation of a social scene will be richer if you have induced members of that scene to comment on it and react to it. Even if people reject the interpretation, this can enhance your understanding of their perspectives. Though it is hardly an ethical requirement, it also seems appropriate to provide people with an opportunity to react to what has been written about them as a matter of fairness (Manning 1997).

Yet it is not always practical or desirable to solicit formal reviews of interpretations and findings. In many qualitative studies, researchers penetrate the fronts (Goffman 1959) people use to project a favorable image of themselves. Taylor analyzed the accounts attendants used to make practices that were illegal or distasteful appear morally justifiable to themselves and others. Not only would confronting attendants with this interpretation have shattered the researcher's relationships with them, it would have provoked considerable discomfort and anxiety among them. Further, Taylor's interpretations would have been dismissed in the same manner as the views of officials and professionals: "They don't know what it's really like." In some studies the researchers and subjects do not simply have different interpretations of particular views or practices; they have different worldviews.

Even when the researcher is sympathetic with the perspectives of informants, it may not warrant asking the informants to comment on the researcher's interpretations. A central focus of Taylor's Duke family study has been on the meanings of disability within their social network. People have been disproportionately labeled as disabled or mentally retarded, yet they construct identities of themselves and family members and friends as normal, nondisabled persons. They thereby avoid the social stigma associated with being mentally retarded, in particular, and create a positive social status for themselves. How deeply people hold onto these positive identities is unknown and is probably a matter that should be left unexplored. To confront the Duke family with how they are viewed in the wider society—even assuming that the sociological concept of stigma could be explained to them—would challenge how they prefer to see themselves and threaten to shake the foundations of their identities.

As with other aspects of qualitative research, the advisability of member checks can only be determined in the context of the specific situation in which a study has been conducted.

Your Own Perspective

What you see and report as findings depends on who you are and how you see the world. Findings do not exist independently of the consciousness of the observer. All observations are filtered through the researcher's selective lens. This is not to suggest that findings are solely social artifacts or products of the researcher's imagination. Just because data are never self-explanatory does not mean that anything goes. Within the researcher's theoretical perspective, stock of cultural knowledge, and particular vantage point, findings can more or less accurately reflect the nature of the world. As Richardson (1990b, 27) writes, "... because all knowledge is partial and situated, it does not mean that there is no knowledge or that situated knowledge is bad."

In traditional research, bias is to be avoided at all costs. It is assumed that researchers can conduct studies with no values, commitments, theoretical perspectives, or world views. In our view this is impossible.

Rather than to act as though you have no point of view, it is better to own up to your perspective and examine your findings in this light. We occasionally read studies in which researchers have an obvious "ax to grind"—pet theories to impose on the data or values commitments that prevent them from reporting, or even seeing, things that do not fit with what they believe. We also sometimes come across studies in which researchers simply confirm what they thought before they even did their studies. If you do not learn something that challenges your previously held beliefs when you do qualitative research, then you have probably done it in the wrong way.

An understanding of your findings requires some understanding of your own perspectives, logic, and assumptions. This is one of the reasons we advise researchers to record their own feelings and assumptions in observer's comments throughout their studies. Critical self-reflection is essential in this kind of research.

Mentors or colleagues usually can be helpful in challenging your findings or interpretations and helping to keep you honest.

CONSTRUCTING LIFE HISTORIES

The life history contains a description of the important events and experiences in a person's life or some major part of it in his or her own words. In constructing life histories, analysis is a process of editing and putting the story together in such a way that it captures the person's own feelings, views, and perspectives.

As a social science document, the life history should be constructed to illuminate the socially significant features of the person's life. The concept of *career* (Becker 1963; Goffman 1961; Hughes 1937) probably provides the most fruitful way of doing this. The term *career* refers to the sequence of social positions people occupy throughout their lives and the changing definitions of themselves and their world they hold at various stages of that sequence. The concept directs our attention to the fact that people's definitions of themselves and others are not unique or idiosyncratic, but rather follow a standard and orderly pattern according to the situations in which people find themselves (Goffman 1961). In putting together the life history, we try to identify the critical stages and periods in a person's life that shape his or her definitions and perspectives. For example, we can see how the meaning of being labeled mentally retarded changes as people move through infancy, early childhood, secondary age, and adulthood.