(e) informal discussions with program staff,
(f) a review of student projects and other documents, and
(g) 23 records from the files of each student (including employer evaluations of students, student products, test scores, and staff progress evaluations of students).

A set of guide questions was prepared for analyzing and reviewing each source (Fehrenbacher, Owens, and Haehnn 1976: 7-8). Information from all of these sources was integrated to produce a highly readable narrative that could be used by decision makers and funders to better understand what it was like to be in the program (Owens, Haehnn, and Fehrenbacher 1987).

The evaluation staff of the Northwest Regional Educational Laboratory took great pains to carefully validate the information in the case studies. Different sources of information were used to cross-validate findings, patterns, and conclusions. Two evaluators reviewed the material in each case study to independently make judgments and interpretations about the content and meaning of the material in the case. In addition, an external evaluator reviewed the raw data to check for biases or unwarranted conclusions. Students were asked to read their own case studies and comment on the accuracy of fact and interpretation in the study. Finally, to guarantee the readability of the case studies, a newspaper journalist was employed to help organize and edit the final versions.

Such a rigorous case study approach increases the confidence of readers that the cases are accurate and comprehensive. Both in its content and the process by which it was constructed, the Northwest Lab case study presented at the end of this chapter (Appendix 8.2) exemplifies how an individual case study can be prepared and presented.

The same rigorous process would apply to case study data at the group or program level. For excellent examples of case studies in education, see Brizuela et al. (2000), Stake, Bresler, and Mabry (1991), Perrone (1985), and Alkin, Daillak, and White (1979); for family research see Sussman and Gilgun (1996); for international development see Salmen (1987) and Searle (1985); for government accountability see Kloman (1979); and for a detailed example of conducting and presenting an evaluation case study, see Hébert (1986).

How one compares and contrasts cases will depend on the purpose of the study and how cases were sampled. As discussed in Chapter 5, critical cases, extreme cases, typical cases, and heterogeneous cases serve different purposes. Other excellent resources for qualitative case analysis include Stake (1995), Merriam (1997), Yin (1994), Hamel (1993), and the U.S. General Accounting Office (1987). To pursue case studies as stories that build on and display the elements of good storytelling, see Glesne (1999).

Once case studies have been written, the analytic strategies described in the remainder of this chapter can be used to further analyze, compare, and interpret the cases to generate cross-case themes, patterns and findings.

Pattern, Theme, and Content Analysis

The ability to use thematic analysis appears to involve a number of underlying abilities, or competencies. One competency can be called pattern recognition. It is the ability to see patterns in seemingly random information. (Boyatzis 1998:7)

No precise or agreed-upon varieties and processes of analysis. Content analysis, for example, sometimes refers to searching for words or themes. For example, a politician might be analyzing phrases or concepts in the speeches of two politicians, perhaps to see how many times they used a phrase such as "family economy" or "family values." Analysis usually refers to analyzing transcripts, diaries, interviews, and similar raw data rather than observation-based data. More generally, however, analysis is used to refer to any production and sense-making of a volume of qualitative content to identify core or central meanings. Case studies, for example, are content analyzed.

The core meanings for content analysis are often called themes. Alternatively, the core meanings are broken into categories, with each category distinguished as either a pattern or a theme. I'm asking you to reflect on the difference between patterns and themes. There's no hard-and-fast distinction. The term pattern usually refers to a qualitative finding, for example, participants reporting feeling rappelled down the cliff and feeling a lot of fear. Theme analysis, on the other hand, takes a more categorical or conceptual approach. Putting these terms together, it is possible to analyze a wilderness education study.

The content analysis reveals patterns and themes. For example, participants reporting feeling rappelled down the cliff and feeling fear also may also initially experience a sense of sharing personal or group fear. Those patterns may be rephrased as:

The process of sharing personal fear is a major theme of the wilderness education study.

Putting these terms together, it is possible to analyze a wilderness education study.
No precise or agreed-on terms describe varieties and processes of qualitative analysis. Content analysis, for example, sometimes refers to searching text for recurring words or themes. For example, a speech by a politician might be analyzed to see what phrases or concepts predominate, or speechers of two politicians might be compared to see how many times and in what contexts they used a phrase such as "global economy" or "family values." Content analysis usually refers to analyzing text (interview transcripts, diaries, or documents) rather than observation-based field notes. More generally, however, content analysis is used to refer to any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings. Case studies, for example, can be content analyzed.

The core meanings found through content analysis are often called patterns or themes. Alternatively, the process of searching for patterns or themes may be distinguished, respectively, as pattern analysis or theme analysis. I'm asked frequently about the difference between a pattern and a theme. There's no hard-and-fast distinction. The term pattern usually refers to a descriptive finding, for example, "Almost all participants reported feeling fear when they rappelled down the cliff," while a theme takes a more categorical or topical form: Fear. Putting these terms together, a report on a wilderness education study might state:

The content analysis revealed a pattern of participants reporting being afraid when rappelling down cliffs and running river rapids; many also initially experienced the group process of sharing personal feelings as evoking some fear. Those patterns make "Dealing with fear" a major theme of the wilderness education program experience.

Inductive and Deductive Qualitative Analyses

Francis Bacon is known for his emphasis on induction, the use of direct observation to confirm ideas and the linking together of observed facts to form theories or explanations of how natural phenomena work. Bacon correctly never told us how to get ideas or how to accomplish the linkage of empirical facts. Those activities remain essentially humanistic—you think hard. (Bernard 2000:12)

Bacon (1561-1626) is recognized as one of the founders of scientific thinking, but he also has been awarded "the dubious honor of being the first martyr of empiricism" (Bernard 2000:12). Still pondering the universe at age 65, he got an idea one day while driving his carriage in the snow in a farming area north of London. It occurred to him that cold might delay the biological process of putrefaction, so he stopped, purchased a hen from a farmer, killed it on the spot, and stuffed it with snow. His idea worked. The snow did delay the rotting process, but he caught bronchitis and died a month later. As I noted in Chapter 6, fieldwork can be risky. Engaging in analysis, on the other hand, is seldom life threatening, though you do risk being disputed and sometimes ridiculed by those who arrive at contrary conclusions.

Inductive analysis involves discovering patterns, themes, and categories in one’s data. Findings emerge out of the data, through the analyst’s interactions with the data, in contrast to deductive analysis where the data are analyzed according to an existing framework. Qualitative analysis is typically inductive in the early stages, especially when developing a codebook for content analysis or figuring out possible categories, patterns, and themes. This is often called "open coding" (Strauss and Corbin 1998:223) to emphasize the importance of being open to the
ANALYSIS, INTERPRETATION, AND REPORTING

data. "Grounded theory" (Glaser and Strauss 1967) emphasizes becoming immersed in the data—being grounded—so that embedded meanings and relationships can emerge. The French would say of such an immersion process: je m'enracine. "I root myself." The analyst becomes implanted in the data. The resulting analysis grows out of that groundedness.

Once patterns, themes, and/or categories have been established through inductive analysis, the final, confirmatory stage of qualitative analysis may be deductive in testing and affirming the authenticity and appropriateness of the inductive content analysis, including carefully examining deviate cases or data that don't fit the categories developed. Generating theoretical propositions or formal hypotheses after inductively identifying categories is considered deductive analysis by grounded theorists Strauss and Corbin (1998): "Anytime that a researcher derives hypotheses from data, because it involves interpretation, we consider that to be a deductive process" (p. 22). Grounded theorizing, then, involves both inductive and deductive processes: "At the heart of theorizing lies the interplay of making inductions (deriving concepts, their properties, and dimensions from data) and deductions (hypothesizing about the relationships between concepts)" (Strauss and Corbin 1998:22).

Analytic induction, in contrast to grounded theory, begins with an analyst's deduced propositions or theory-derived hypotheses and is "a procedure for verifying theories and propositions based on qualitative data" (Taylor and Bogdan 1984:127). Sometimes, as with analytic induction, qualitative analysis is first deductive or quasi-deductive and then inductive as when, for example, the analyst begins by examining the data in terms of theory-derived sensitizing concepts or applying a theoretical frame

work developed by someone else (e.g., testing Piaget's developmental theory on case studies of children). After or alongside this deductive phase of analysis, the researcher strives to look at the data afresh for undiscovered patterns and emergent understandings (inductive analysis). I'll discuss both grounded theory and analytic deduction at greater length later in this chapter.

Because, as identified and discussed in Chapter 2, inductive analysis is one of the primary characteristics of qualitative inquiry, we'll focus on strategies for thinking and working inductively. There are two distinct ways of analyzing qualitative data inductively. First, the analyst can identify, define, and elucidate the categories developed and articulated by the people studied to focus analysis. Second, the analyst may also become aware of categories or patterns for which the people studied did not have labels or terms, and the analyst develops terms to describe these inductively generated categories. Each of these approaches is described below.

Indigenous Concepts and Practices

A good place to begin inductive analysis is to inventory and define key phrases, terms, and practices that are special to the people in the setting studied. What are the indigenous categories that the people interviewed have created to make sense of their world? What are practices they engage in that can be understood only within their worldview? Anthropologists call this emic analysis and distinguish it from etic analysis, which refers to labels imposed by the researcher. (For more on this distinction and its origins, see Chapter 6, which discusses emic and etic perspectives in fieldwork.) "Identifying the categories and terms used by informants themselves" (Bernard 1995)

Consider the practice of Dani women of amputating the female clitoris when a relative dies. The Dani live in the lush Baliem Valley of Papua New Guinea's most remote province, Irian Jaya's half of New Guinea. The women honor and placate ancestors who have fought the presence of the government and its police, but many traditional ways of life remain.

Some women in Dani villages have cut off their clasps and a thumb on each leg, a ceremony called amputation when a relative dies. They had the tops of six of their fingers cut off. "The first time was the hardest. Pain was so bad, I thought I'd die. But it was worth it to honor my father." (Taylor and Bogdan 1984:129).

Analyzing such an indigenous concept by understanding the behavior of its practitioners within their cultural context, in the words of the people, in their language, view.

According to this view, culture should always be studied in terms of the inside view—of human events, conceptualization in an anthropological context, in the world of its practitioners rather than "imposed" (ethnocentric) classifications (Pelto and Pelto 1978:96).

Anthropologists, conversely, have long emphasized the importance of preserving and reporting categories of people studied. Bronislaw Malinowski (1943) was a major influence: "If it is our serious

nee
eld by someone else (e.g., test-developmental theory on case then). After or alongside this use of analysis, the researcher must attend to the data afresh for undisturbed and emergent understandings (inductive analysis). I’ll discuss both dry and analytic deduction at greater length later in this chapter.

Chapter 6, which discusses inductive analysis, begins by distinguishing it from cross-cultural (ethnocentric) classifications of behavior. According to this view, cultural behavior should always be studied and categorized in terms of what human events. That is, the units of conceptualization in anthropological theories should be “discovered” by analyzing the cognitive processes of the people studied rather than “imposed” from cross-cultural (hence, ethnocentric) classifications of behavior. (Pelto and Pelto 1978:54)

Anthropologists, working cross-culturally, have long emphasized the importance of preserving and reporting the indigenous categories of people studied. Franz Boas (1943) was a major influence in this direction: “If it is our serious purpose to understand the thoughts of a people, the whole analysis of experience must be based on their concepts, not ours” (p. 314).

In an intervention program, certain terms may emerge or be created by participants to capture some essence of the program. In the wilderness education program I evaluated, the idea of “detoxification” became a powerful way for participants to share meaning about what being in the wilderness together meant (Patton 1999a:49-52). In the Caribbean Extension Project evaluation, the term liming had special meaning to the participants. Not really translatable, it essentially means passing time, hanging out, doing nothing, shooting the breeze—but doing so agreeably, without guilt, stress, or a sense that one ought to be doing something more productive with one’s time. Liming has positive, desirable connotations because of its social, group meaning—people just enjoying being together with nothing that has to be accomplished. Given that uniquely Caribbean term, what does it mean when participants describe what happened in a training session or instructional field trip as primarily “liming”? How much liming could acceptably be built into training for participant satisfaction and still get something done? How much programmatic liming was acceptable? These became key formative evaluation issues.

In evaluating a leadership training program, we gathered extensive data on what participants and staff meant by the term leadership. Pretraining and posttraining exercises involved participants in writing a paragraph on leadership; the writing was part of the program curriculum, not designed for evaluation, but the results provided useful qualitative evaluation data. There were small group discussions on leadership. The training included lectures and group discussions on leadership, which we observed. We participated in and took notes on informal
discussions about leadership. Because the very idea of "leadership" was central to the program, it was essential to capture variations in what participants meant when they talked about leadership. The results showed that ongoing confusion about what leadership meant was one of the problematic issues in the program. Leadership was an indigenous concept in that staff and participants throughout the training experience used it extensively, but it was also a sensitizing concept because we knew going into the fieldwork that it would be an important notion to study.

**Sensitizing Concepts**

In contrast to purely indigenous concepts, sensitizing concepts refer to categories that the analyst brings to the data. Experienced observers often use sensitizing concepts to orient fieldwork, an approach discussed in Chapter 6. These sensitizing concepts have their origins in social science theory, the research literature, or evaluation issues identified at the beginning of a study. Sensitizing concepts give the analyst "a general sense of reference" and provide "directions along which to look" (Blumer 1969: 148). Using sensitizing concepts involves examining how the concept is manifest and given meaning in a particular setting or among a particular group of people.

Conroy (1987) used the sensitizing concept "victimization" to study police officers. Innocent citizens are frequently thought of as the victims of police brutality or indifference. Conroy turned the idea of victim around and looked at what it would mean to study police officers as victims of the experiences of law enforcement. He found the sensitizing concept of victimization helpful in understanding the isolation, lack of interpersonal affect, cynicism, repressed anger, and sadness observed among police officers. He used the idea of victimization to tie together the following quotes from police officers:

As a police officer and as an individual I think I have lost the ability to feel and to empathize with people. I had a little girl that was run over by a bus and her mother was there and she had her little book bag. It was really sad at the time but I remember feeling absolutely nothing. It was like a mannequin on the street instead of some little girl. I really wanted to be able to cry about it and I really wanted to have some feelings about it, but I couldn't. It's a little frightening for me to be so callous and I have been unable to relax.

I am paying a price by always being on edge and by being alone. I have become isolated from old friends. We are different. I feel separated from people, different, out of step. It becomes easier to just be with other police officers because they have the same basic understanding of my environment, we speak the same language. The terminology is crude. When I started I didn't want to get into any words like "scumbags" and "scrotes," but it so aptly describes these people:

I have become isolated from who I was because I have seen many things I wish I had not seen. It's frustrating to see things that other people don't see, won't see, can't see. I wish sometimes, I didn't see the things. I need to be assertive, but don't like it. I have to put on my police mask to do that. But now it is getting harder and harder to take that mask off. I take my work home with me. I don't want my work to invade my personal life but I'm finding I need to be alone more and more. I need time to recharge my batteries. I don't like to be alone, but must. (Conroy 1987:52)

Two additional points are worth making about these quotations. First, by presenting the actual data on which the analysis is based, the reader is able to determine whether "victimization" helps in making sense of the data. By presenting the quotes of police officers in their own words and report that was the basis of Conroy invites readers to engage with the analysis and interpretation. Second, these three quotations illustrate the power of qualitative analysis. Based on the story of the, skilled analyst is able to understand what the data reveal the perspective of the people interviewed and the intricate nature of their experience. What people actually say and do in the course of their lives is not simply to tell a story. The analyst uses concepts to understand the power of qualitative analysis is not simply to tell a story. Having suggested how this can bring focus to individuals and groups, moves us into a complex analytical strategy.

**Indigenous Typologies**

Typologies are classifications made up of categories that divide
the actual data on which the analysis is based, the readers are able to make their own determination of whether the concept "victimization" helps in making sense of the data. By presenting respondents in their own words and reporting the actual data that was the basis of his interpretation, Conroy invites readers to make their own analysis and interpretation. The analyst's constructs should not dominate the analysis, but rather should facilitate the reader's understanding of the world under study.

Second, these three quotations illustrate the power of qualitative data. The point of analysis is not simply to find a concept or label to neatly tie together the data. What is important is understanding the people studied. Concepts are never a substitute for direct experience with the descriptive data. What people actually say and the descriptions of events observed remain the essence of qualitative inquiry. The analytical process is meant to organize and elucidate the story of the data. Indeed, the skilled analyst is able to get out of the way of the data to let the data tell their own story. The analyst uses concepts to help make sense of and present the data, but not to the point of straining or forcing the analysis. The reader can usually tell when the analyst is more interested in proving the applicability and validity of a concept than in letting the data reveal the perspectives of the people interviewed and the intricacies of the world studied.

Having suggested how singular concepts can bring focus to inductive analysis, the next level of analysis, constructing typologies, moves us into a somewhat more complex analytical strategy.

Indigenous Typologies

Typologies are classification systems made up of categories that divide some aspect of the world into parts along a continuum. They differ from taxonomies, which completely classify a phenomenon through mutually exclusive and exhaustive categories, like the biological system for classifying species. Typologies, in contrast, are built on ideal-types or illustrative endpoints rather than a complete and discrete set of categories. Well-known and widely used sociological typologies include Redfield's folk-urban continuum (gemeinschaft/gesellschaft) and Von Wiese's and Becker's sacred-secular continuum (for details, see Vidich and Lyman 2000:52). Sociologists classically distinguish ascribed from achieved characteristics. Psychologists distinguish degrees of mental illness (neuroses to psychoses). Political scientists classify governmental systems along a democratic-authoritarian continuum. Economists distinguish laissez-faire from centrally planned economic systems. Systems analysts distinguish open from closed systems. In all of these cases, however, the distinctions involve matters of degree and interpretation rather than absolute distinctions. All of these examples have emerged from social science theory and represent theory-based typologies constructed by analysts. We'll examine that approach in greater depth in a moment. First, however, let's look at identifying indigenous typologies as a form of qualitative analysis.

Illuminating indigenous typologies requires an analysis of the continua and distinctions used by people in a setting to break up the complexity of reality into distinguishable parts. The language of a group of people reveals what is important to them in that they name something to separate and distinguish it from other things with other names. Once these labels have been identified from an analysis of what people have said during fieldwork, the next step is to identify the attributes or characteristics that distinguish one thing from another. In describing this
kind of analysis, Charles Frake (1962) used the example of a hamburger. Hamburgers can vary a great deal in how they are cooked (rare to well-done) or what is added to them (pickle, mustard, ketchup, lettuce), and they are still called hamburgers. However, when a piece of cheese is added to the meat, it becomes a cheeseburger. The task for the analyst is to discover what it is that separates "hamburger" from "cheeseburger," that is, to discern and report "how people construe their world of experience from the way they talk about it" (Frake 1962:74).

An analysis example of this kind comes from a formative evaluation aimed at reducing the dropout rate among high school students. In observations and interviews at the targeted high school, it became important to understand the ways in which teachers categorized students. With regard to problems of truancy, absenteeism, tardiness, and skipping class, the teachers had come to label students as either "chronics" or "borderlines." One teacher described the chronics as "the ones who are out of school all the time and everything you do to get them in doesn't work." Another teacher said, "You can always pick them out, the chronics. They're usually the same kids." The borderlines, on the other hand, "skip a few classes, waiting for a response, and when it comes they shape up. They're not so different from your typical junior high student, but when they see the chronics getting away with it, they get more brazen in their actions." Another teacher said, "Borderlines are gone a lot but not constantly like the chronics."

Not all teachers used precisely the same criteria to distinguish chronics from borderlines, but all teachers used these labels in talking about students. To understand the program activities directed at reducing high school dropouts and the differential impact of the program on students, it became important to observe differences in how borderlines and chronics were treated. Many teachers, for example, refused even to attempt to deal with chronics. They considered it a waste of their time. Students, it turned out, knew what labels were applied to them and how to manipulate these labels to get more or less attention from teachers. Students who wanted to be left alone called themselves "chronics" and reinforced their "chronic" image with teachers. Students who wanted to graduate, even if only barely and with minimal school attendance, cultivated an image as "borderline."

Another example of an indigenous typology emerged in the wilderness education program I evaluated. During the second year of the project, one subgroup's members started calling themselves the "turtles." They contrasted themselves to the "truckers." On the surface, these labels were aimed at distinguishing different styles of hiking and backpacking, one slow and one fast. Beneath the surface, however, the terms came to represent different approaches to the wilderness and different styles of experience in relation to the wilderness and the program.

Groups, cultures, organizations, and families develop their own language systems to emphasize distinctions they consider important. Every program gives rise to a special vocabulary that staff and participants use to differentiate types of activities, kinds of participants, styles of participation, and variously valued outcomes. These indigenous typologies provide clues to analysts that the phenomena to which the labels refer are important to the people in the setting and that to fully understand the setting it is necessary to understand those terms and their implications.

**Analyst-Constructed Typologies**

Once indigenous concepts, typologies, and themes have been surfaced, the analyst moves to a different type of analysis. Looking for patterns, categories for which the analyst constructs further elucidations of the analyst's analyses must be careful to avoid creating world that make sense sequences can be worked out world you do not understand. The theorist John Maynard says formative in this regard: "Know the world that make sense sequences can be worked out in a world you do not understand" (p. 46).

Constructing ideal-type paradigms is one simple way to qualitative comparison.
ronics were treated. Many students refused even to admit chronics. They considered them a waste of time. Students wanted to be left alone called chronics" and reinforced their status. Students wanted to manipulate these labels from teachers. Students who did not show interest in school attendance, culti-vated to be "borderline." An example of an indigenous culture such as Robert Putnam's Bowling Alone trend to respond with enthusiasm to easily grasped analyses of what is wrong with American education, the popularity of 50's analyses of "the organization man" and "the ugly American"; and Baldwin's The Fire Next Time: Friedan's "the problem that has no name". The Feminine Mystique; Harrington's The Other America; Bellah et al.'s Habits of the Heart; Bloom's The Closing of the American Mind; William Bennett's and Cornel West's politically opposite diagnoses of a moral crisis that is besetting the nation. Such analyses give us the relief of names to attach to widespread concerns; they catch on like new kind of pill for a real social ill that, whether the catchily named pill works or not, gives us some sense that at least someone knows about our pain.

It is because they have in the vicinity of where we are hurting that we respond so strongly: poke my wound, even to help heal it, and I will react. But this "poking" is also not as healing as it could be, as it remains too narrow in ways that constrain and misdirect the holistic help we want. Like many analysts before them, what they have done is to focus on where a problem becomes readily evident. But as analyses of wife beating that focus on the victims tend to lead to proposals often formulated by entirely other people than the analysts that also focus on the women, excluding from the picture the male perpetrators and the systems that empower them, this won't do. We need older analyses and broader gauge ones. (Minnich 1999:8,11)

**BEYOND NAMING PROBLEMS: HOLISTIC AND BROADLY GAUGED ANALYSES**

Excerpts of Reflections of Philosopher Elizabeth Minnich

United States readers [of critiques of popular culture such as Robert Putnam’s Bowling Alone] tend to respond with enthusiasm to easily grasped analyses of what is wrong with American education, the popularity of 50’s analyses of “the organization man” and “the ugly American”; and Baldwin’s The Fire Next Time; Friedan’s “the problem that has no name”. The Feminine Mystique; Harrington’s The Other America; Bellah et al.’s Habits of the Heart; Bloom’s The Closing of the American Mind; William Bennett’s and Cornel West’s politically opposite diagnoses of a moral crisis that is besetting the nation. Such analyses give us the relief of names to attach to widespread concerns; they catch on like a new kind of pill for a real social ill that, whether the catchily named pill works or not, gives us some sense that at least someone knows about our pain.

It is because they have in the vicinity of where we are hurting that we respond so strongly: poke my wound, even to help heal it, and I will react. But this “poking” is also not as healing as it could be, as it remains too narrow in ways that constrain and misdirect the holistic help we want. Like many analysts before them, what they have done is to focus on where a problem becomes readily evident. But as analyses of wife beating that focus on the victims tend to lead to proposals often formulated by entirely other people than the analysts that also focus on the women, excluding from the picture the male perpetrators and the systems that empower them, this won’t do. We need older analyses and broader gauge ones. (Minnich 1999:8,11)

**Constructing Typologies**

When numerous concepts, typologies, and paradigms have been surfaced, the analyst moves to a different task of induction—looking for patterns, categories, and themes for which the analyst can construct a typology to further elucidate findings. Such constructions must be done with considerable care to avoid creating things that are not really in the data. The advice of biological theorist John Maynard Smith (2000) is informative in this regard: Seek models of the world that make sense and whose consequences can be worked out, for “to replace a world you do not understand by a model of a world you do not understand is no advance” (p. 46).

Constructing ideal-types or alternative paradigms is one simple form of presenting qualitative comparisons. Exhibit 1.3 in Chapter 1 presented my ideal-typical comparison of coming-of-age paradigms that contrasts tribal initiation themes with contemporary coming-of-age themes (Patton 1999a). A series of patterns is distilled into contrasting themes that create alternative ideal-types. The notion of “ideal-types” makes it explicit that the analyst has constructed and interpreted something that supersedes purely descriptive analysis.

In creating analyst-constructed typologies through inductive analysis, you take on the task of identifying and making explicit patterns that appear to exist but remain unperceived by the people studied. The danger is that analyst-constructed typologies impose a world of meaning on the participants.
that better reflects the observer’s world than the world under study. One way of testing analyst-constructed typologies is to present them to people whose world is being analyzed to find out if the constructions make sense to them.

The best and most stringent test of observer constructions is their recognizability to the participants themselves. When participants themselves say, “yes, that is there, I’d simply never noticed it before,” the observer can be reasonably confident that he has tapped into extant patterns of participation. (Lofland 1971:34)

Exhibit 8.6, using the problem of classifying people’s ancestry, shows what can happen when indigenous and official constructions conflict, a matter of some consequence to those affected.

A good example of an analyst-generated typology comes from an evaluation of the National Museum of Natural History, Smithsonian Institution, done by Robert L. Wolf and Barbara L. Tymitz (1978). This has become a classic in the museum studies field. They conducted a naturalistic inquiry of viewers’ reactions to the “Ice Age Mammals and Emergence of Man” exhibit. From their observations, they identified four different kinds of visitors to the exhibit. These descriptions are progressive in that each new category identifies a person more serious about the exhibit hall.

- **The Commuter:** This is the person who merely uses the hall as a vehicle to get from the entry point to the exit point.

- **The Nomad:** This is a casual visitor, a person who is wandering through the hall, apparently open to becoming interested in something. The Nomad is not really sure why he or she is in the hall and not really sure that s/he is going to find anything interesting in this particular exhibit hall. Occasionally the Nomad stops, but it does not appear that the nomadic visitor finds any one thing in the hall more interesting than any other thing.

  - **The Cafeteria Type:** This is the interested visitor who wants to get interested in something, and so the entire museum and the hall itself are treated as a cafeteria. Thus, the person walks along, hoping to find something of interest, hoping to “put something on his or her tray” and stopping from time to time in the hall. While it appears that there is something in the hall that spontaneously sparks the person’s interest, we perceive this visitor has a predilection to becoming interested, and the exhibit provides the many things from which to choose.

  - **The V.I.P.—Very Interested Person:** This visitor comes into the hall with some prior interest in the content area. This person may not have come specifically to the hall, but once there, the hall serves to remind the V.I.P.’s that they were, in fact, interested in something in that hall beforehand. The V.I.P. goes through the hall much more carefully, much slower, much more critically— that is, he or she moves from point to point, stops, examines aspects of the hall with a greater degree of scrutiny and care. (Wolf and Tymitz 1978: 10-11)

This typology of types of visitors became important in the full evaluation because it permitted analysis of different kinds of museum experiences. Moreover, the evaluators recommended that when conducting interviews to get museum visitors’ reactions to exhibits, the interview results should be differentially valued depending on the person being interviewed (commuter, nomad, cafeteria type, or V.I.P.). A different typology would distinguish how visitors
Qualitative Analysis and Interpretation

Occasionally the Nomad does not appear that the Nomad finds anything interesting than any other

**Type:** This is the interested person who wants to get interested in what's resting in this particular exhibit and so the entire museum itself is treated as a cafeteria. As the person walks along, hoping for something of interest, hoping on his or her tray “and in time to time in the hall,” it spontaneously sparks the visitor’s interest, we perceive this visitor reaction to becoming interested. An exhibit provides the many interesting things from which to choose.

**Very Interested Person:** This person goes into the hall with some focused interest in the content area. This interest may or may not have come specifically to the museum. Once there, the hall serves as a restaurant for I.P.’s that they were, in fact, interested in something in that hall before entering. When a V.I.P. goes through the hall, the individual goes more carefully, much slower, critically—that is, he or she points to point, stops, examines the hall with a greater degree of care.

Different types of visitors became interested in the hall, each type of interest valued depending on the type of person being interviewed—commuter, nomad, cafeteria type, or VIP.

A different typology was developed to distinguish how visitors learn in a museum:

EXHIBIT 8.6 Qualitative Analysis of Ancestry at the U.S. Census

To count different kinds of people—the job of the Census Bureau—you need categories to count them in. The long form of the 2000 census, given to 1 in 6 households, asked an open-ended, fill-in-the-blank question about “ancestry.” Analysts then coded the responses into categories, 1 of 604 categories, up from 467 in 1980. The government doesn’t ask about religion, so if people respond that they are Jewish, they don’t get their ancestry counted. However, those who write in that they are Amish or Mennonite do get counted because those are considered cultural categories.

Ethnic minorities that cross national boundaries, such as French and Spanish Basques, and groups affected by geopolitical change, such as Czechs and Slovaks or groups within the former Yugoslavia, are counted in distinct categories. The Census Bureau, following advice from the U.S. State Department, differentiates Taiwanese Americans from Chinese Americans, a matter of political sensitivity.

Can Assyrians and Chaldeans be lumped together? When the Census Bureau announced that it would combine the two in the same ancestry code, an Assyrian group sued over the issue, but lost the lawsuit. Assyrian Americans trace their roots to a biblical-era empire covering much of what is now Iraq and believe that Chaldeans are a separate religious subgroup. A fieldworker for the Census Bureau did fieldwork on the issue.

“I went into places where there were young people playing games, went into restaurants, and places where older people gathered,” says Ms. McKenney. ... She paid a visit to Assyrian neighborhoods in Chicago, where a large concentration of Assyrian Americans live. At a local community center and later that day at the Assyrian restaurant next door, community leaders presented their case for keeping the ancestry code the same. Over the same period, she visited Detroit to look into the Chaldean matter. ... “I found that many of the people, especially the younger people, viewed it as an ethnic group, not a religion,” says Ms. McKenney. She and Mr. Reed (Census Bureau ancestry research expert) concurred that enough differences existed that the Chaldeans could potentially qualify as a separate ancestry group.

In a conference call between interested parties, a compromise was struck. Assyrians and Chaldeans would remain under a single ancestry code, but the name would no longer be Assyrian, it would be Assyrian/Chaldean/Syriac—Syriac being the name of the Aramaic dialect that Assyrians and Chaldeans speak. “There was a meeting of the minds between all the representatives, and basically it was a unified decision to say that we’re going to go under the same name,” says the Chaldean Federation’s Mr. Yono. (Kulish 2001:1)

“Museum Encounters of the First, Second, and Third Kind,” a take-off on the popular science fiction movie Close Encounters of the Third Kind, which referred to direct human contact with visitors from outer space.
ANALYSIS, INTERPRETATION, AND REPORTING

- **Museum Encounters of the First Kind:** This encounter occurs in halls that use display cases as the primary approach to specimen presentation. Essentially, the visitor is a passive observer to the “objects of interest.” Interaction is visual and may occur only at the awareness level. The visitor is probably not provoked to think or consider ideas beyond the visual display.

- **Museum Encounters of the Second Kind:** This encounter occurs in halls that employ a variety of approaches to engage the visitor’s attention and/or learning. The visitor has several choices to become active in his/her participation. . . . The visitor is likely to perceive, question, compare, hypothesize, etc.

- **Museum Encounters of the Third Kind:** This encounter occurs in halls that invite high levels of visitor participation. Such an encounter invites the visitor to observe phenomena in process, to create, to question the experts, to contribute, etc. Interaction is personalized and within the control of the visitor. (Wolf and Tymitz 1978:39)

Here’s a sample of a quite different classification scheme, this one developed from fieldwork by sociologist Rob Rosenthal (1994) as “a map of the terrain” of the homeless.

**Skidders:** Most often women, typically in their 30s, grew up middle or upper class but “skidded” into homelessness as divorced or separated parents.

**Street people** Mostly men, often veterans, rarely married; highly visible net and know how to use the resources of the street.

**Wingnuts:** People with severe mental problems, occasionally due to longterm alcoholism, a visible subgroup.

**Transitory workers:** People with job skills and a history of full-time work who travel from town to town, staying months or years in a place, and then heading off to greener pastures.

Categories of how homeless people spend their time:

- Hanging out
- Getting by
- Getting ahead

As these examples illustrate, the first purpose of typologies is to distinguish aspects of an observed pattern or phenomenon descriptively. Once identified and distinguished, these types can later be used to make interpretations and they can be related to other observations to draw conclusions, but the first purpose is description based on an inductive analysis of the patterns that appear in the data.

---

Thus far, I’ve provided the fruit of qualitative themes, categories, and back up now to consider patterns in qualitative data patterns into meaningful themes. This chapter concludes with this section, but I think you understand what kinds of patterns are generated from qualitative data by delving very deeply into this subject, especially because the methods and are undertaken differently in different disciplines and divergent frameworks. Thus far, you can offer.

Raw field notes and Vancouver constitute the undigested complexity. Simplifying and making sense of that complexity constitutes qualitative content analysis. Developing a manageable classification or the first step of analysis is that there is chaos and complexity at the onset of analysis, then, involves identifying, categorizing, classifying, and reducing primary patterns in the data. This means analyzing the content of interviews or observations to identify significant patterns. In explaining the data, I refer to a variety of methods: content analysis, coding, content analysis, and inductive analysis. Using the principles of qualitative analysis, the mechanics involved. Some provide different tools and software, to highlight the mechanics involved. Some provide different tools and software, to highlight the mechanics involved. Some provide different tools and software, to highlight the mechanics involved. Some provide different tools and software, to highlight the mechanics involved. Some provide different tools and software, to highlight the mechanics involved.

I begin by reading through raw field notes or interviews and I mark important sections in the margins or even write them on paper or Post-it notes that give indications about what I can do with the data. This come...
Most often women, typically grew up middle or upper "kidded" into homelessness as separated parents. Mostly men, often veter­
maried; highly visible net to use the resources of the
People with severe mental; occasionally due to longterm, a visible subgroup.
workers: People with job history of full-time work who
 town to town, staying years in a place, and then
how homeless people spend

Thus far, I've provided lots of examples of the fruit of qualitative inquiry: patterns, themes, categories, and typologies. Let's
back up now to consider how you recognize patterns in qualitative data and turn those patterns into meaningful categories and
themes. This chapter could have started with this section, but I think it's helpful to understand what kinds of findings can be
generated from qualitative analysis before delving very deeply into the mechanics, especially because the mechanics vary greatly
and are undertaken differently by analysts in different disciplines and working from divergent frameworks. That said, some guid-
ance can be offered.

Raw field notes and verbatim transcripts constitute the undigested complexity of reality. Simplifying and making sense out of
that complexity constitutes the challenge of content analysis. Developing some manageable classification or coding scheme is
the first step of analysis. Without classification there is chaos and confusion. Content analysis, then, involves identifying, coding,
categorizing, classifying, and labeling the primary patterns in the data. This essentially means analyzing the core content of
interviews and observations to determine what's significant. In explaining the process, I'll de-
scribe it as done traditionally, which is without software, to highlight the thinking and
mechanics involved. Software programs provide different tools and formats for coding,
but the principles of the analytical process are the same whether doing it manually
or with the assistance of a computer pro-
gram.

I begin by reading through all of my field notes or interviews and making comments in the margins or even attaching pieces of
paper or Post-it notes that contain my no-
tions about what I can do with the different parts of the data. This constitutes the first cut
at organizing the data into topics and files. Coming up with topics is like constructing
an index for a book or labels for a file system: You look at what is there and give it a name,
a label. The copy on which these topics and labels are written becomes the indexed copy
of the field notes or interviews. Exhibit 8.7 shows a sampling of codes from the field
note margins of the evaluation of the wilderness education program I described in the
chapter on observation.

The shorthand codes are written directly on the relevant data passages, either in the
margins or with an attached tab on the relevant page. Many passages will illustrate
more than one theme or pattern. The first reading through the data is aimed at devel-
oping the coding categories or classification system. Then a new reading is done to actu-
ally start the formal coding in a systematic way. Several readings of the data may be
necessary before field notes or interviews can be completely indexed and coded. Some
people find it helpful to use colored highlighters-color coding different idea or
concepts. Using self-adhesive colored dots or Post-it notes offers another option. Some
use a color printer to print out transcripts in different colors to make it easy to track
the source of a quote when cutting and pasting different quotes into a theme.

If sensing a pattern or "occurrence" can be
called seeing, then the encoding of it can be
called seeing as. That is, you first make the ob-
servation that something important or notable
is occurring, and then you classify or describe
it. ... [T]he seeing as provides us with a link be-
tween a new or emergent pattern and any and
all patterns that we have observed and consid-
ered previously. It also provides a link to any
and all patterns that others have observed and
considered previously through reading. (Boy-
atzis 1998:4)
Where more than one person is working on the analysis, it is helpful to have each person (or small teams for large projects) develop the coding scheme independently, then compare and discuss similarities and differences. Important insights can emerge from the different ways in which two people look at the same set of data, a form of analytical triangulation.

Often an elaborate classification system emerges during coding, particularly in large projects where a formal scheme must be developed that can be used by several trained coders. In the study of evaluation that is the basis for Utilization-Focused Evaluation (Patton 1997a), graduate students in the evaluation program at the University of Minnesota conducted lengthy interviews with 60 project officers, evaluators, and federal decision makers. We developed a comprehensive classification system that would provide easy access to the data by any of the student or faculty researchers. Had only one investigator been intending to use the data, such an elaborate classification scheme would not have been necessary. However, to provide access to several students for different purposes, every paragraph in every interview was coded using a systematic and comprehensive coding scheme made up of 15 general categories with subcategories. Portions of the codebook used to code the utilization of evaluation data appear in Appendix 8.1 at the end of this chapter as an example of one kind of qualitative analysis codebook. This codebook was developed from four sources: (a) the standardized open-ended questions used in interviewing, (b) review of the utilization literature for ideas to be examined and hypotheses to be reviewed, (c) our initial inventory review of the interviews in which two of us read all the data and added categories, (d) a few additional categories when passages of text not covered in the available categories.

Every interview was coded independently. Each coder included our qualitative analysis categories but could retrieve all passages subject included in each scheme, with brief descriptors of the content of those passages. We then go directly to the complete interviews from which were extracted to keep quotations.

In addition, the computerized easy cross-classification comparison of passages for purposes, every paragraph in every interview was coded using a systematic and comprehensive coding scheme made up of 15 general categories with subcategories.

Some such elaborate classification systems are routine for very rigorous amounts of data. Comparing two interviews with multiple coders, each paragraph in every interview was coded using a systematic and comprehensive classification system for every paragraph in every interview. Every interview was coded using a systematic and comprehensive coding scheme made up of 15 general categories with subcategories. Portions of the codebook used to code the utilization of evaluation data appear in Appendix 8.1 at the end of this chapter as an example of one kind of qualitative analysis codebook. This codebook was developed from four sources: (a) the standardized open-ended questions used in interviewing, (b) review of the utilization literature for ideas to be examined and hypotheses to be reviewed, (c) our initial inventory review of the interviews in which two of us read all the
Classifying and coding qualitative data produce a framework for organizing and describing what has been collected during fieldwork. (For published examples of coding schemes, see Bernard 1998:325-28, 387-89, 491-92, 624; Bernard 2000:447-50; Boyatzis 1998; Strauss and Corbin 1998; Miles and Huberman 1994.) This descriptive phase of analysis builds a foundation for the interpretative phase when meanings are extracted from the data, comparisons are made, creative frameworks for interpretation are constructed, conclusions are drawn, significance is determined, and, in some cases, theory is generated.

Convergence and Divergence in Coding and Classifying

In developing codes and categories, a qualitative analyst must first deal with the challenge of convergence (Guba 1978)—figuring out what things fit together. Begin by looking for recurring regularities in the data. These regularities reveal patterns that can be sorted into categories. Categories should then be judged by two criteria: internal homogeneity and external heterogeneity. The first criterion concerns the extent to which the data that belong in a certain category hold together or “dovetail” in a meaningful way. The second criterion concerns the extent to which differences among categories are bold and clear. “The existence of a large number of unassignable or overlapping data items is good evidence of some basic fault in the category system” (Guba 1978:53). The analyst then works back and forth between the data...
and the classification system to verify the meaningfulness and accuracy of the categories and the placement of data in categories. If several different possible classification systems emerge or are developed, some priorities must be established to determine which are more important and illuminative. Prioritizing is done according to the utility, salience, credibility, uniqueness, heuristic value, and feasibility of the classification schemes. Finally, the category system or set of categories is tested for completeness.

1. The set should have internal and external plausibility, a property that might be termed "integratability." Viewed internally, the individual categories should appear to be consistent; viewed externally, the set of categories should seem to comprise a whole picture.

2. The set should be reasonably inclusive of the data and information that do exist. This feature is partly tested by the absence of unassignable cases, but can be further tested by reference to the problem that the inquirer is investigating or by the mandate given the evaluator by his client/sponsor. If the set of categories did not appear to be sufficient, on logical grounds, to cover the facets of the problem or mandate, the set is probably incomplete.

3. The set should be reproducible by another competent judge. The second observer ought to be able to verify that (a) the categories make sense in view of the data which are available, and (b) the data have been appropriately arranged in the category system. The category system auditor may be called upon to attest that the category system "fits" the data and that the data have been properly "fitted into" it.

4. The set should be credible to the persons who provided the information which the set is presumed to assimilate. Who is in a better position to judge whether the categories appropriately reflect their issues and concerns than the people themselves? (Guba 1978:56-57)

After analyzing for convergence, the mirror analytical strategy involves examining divergence. By this Guba means the analyst must "flesh out" the patterns or categories. This is done by processes of extension (building on items of information already known), bridging (making connections among different items), and surfacing (proposing new information that ought to fit and then verifying its existence). The analyst brings closure to the process when sources of information have been exhausted, when sets of categories have been saturated so that new sources lead to redundancy, when clear regularities have emerged that feel integrated, and when the analysis begins to "overextend" beyond the boundaries of the issues and concerns guiding the analysis. Divergence also includes careful and thoughtful examination of data that doesn't seem to fit including deviant cases that don't fit the dominant identified patterns. This sequence, convergence then divergence, should not be followed mechanically, linearly, or rigidly. The processes of qualitative analysis involve both technical and creative dimensions. As noted early in this chapter, no abstract processes of analysis, no matter how eloquently named and finely described, can substitute for the skill, knowledge, experience, creativity, diligence, and work of the qualitative analyst. "The task of converting field notes and observations about issues and concerns into systematic categories is a difficult one. No infallible procedure exists for performing it" (Guba 1978:53).

Determining
Substantive Significance

In lieu of statistical significance findings are judged for substantive significance. The analyst addresses these kinds of judgments about determining substantive significance. The analyst addresses these kinds of judgments about determining substantive significance.

- How solid, coherent, and complete the evidence in support of a finding is in determining the significance of a finding?
- To what extent and in what ways do findings increase an understanding of the phenomenon (Verstehen)?
- To what extent are the findings consistent with other known findings supported by and supported by and by supportive work has confirmed finding that breaks new ground or innovative?
- To what extent are the findings relevant to some intended purposes of theory, informative or formative evaluation, solving in action research?

The qualitative analyst, covering patterns, themes, and utilities in making careful judgments about what is relevant, meaningful in the data. Analysts do not have statistical significance; when an observation or concept, they must rely first on convergence, experience, and judgment.
Determining

Substantive Significance

In lieu of statistical significance, qualitative findings are judged by their substantive significance. The analyst makes an argument for substantive significance in presenting findings and conclusions, but readers and users of the analysis will make their own value judgments about significance. In determining substantive significance, the analyst addresses these kinds of questions:

- How solid, coherent, and consistent is the evidence in support of the findings? (Triangulation, for example, can be used in determining the strength of evidence in support of a finding.)
- To what extent and in what ways do the findings increase and deepen understanding of the phenomenon studied (Verstehen)?
- To what extent are the findings consistent with other knowledge? (A finding supported by and supportive of other work has confirmatory significance. A finding that breaks new ground has discovery or innovative significance.)
- To what extent are the findings useful for some intended purpose (e.g., contributing to theory, informing policy, summative or formative evaluation, or problem solving in action research)?

The qualitative analyst’s effort at uncovering patterns, themes, and categories includes using both creative and critical faculties in making carefully considered judgments about what is really significant and meaningful in the data. Since qualitative analysts do not have statistical tests to tell them when an observation or pattern is significant, they must rely first on their own intelligence, experience, and judgment; second, they should take seriously the responses of those who were studied or participated in the inquiry; and third, the researcher or evaluator should consider the responses and reactions of those who read and review the results. Where all three—analyst, those studied, and reviewers—agree, one has consensual validation of the substantive significance of the findings. Where disagreements emerge, which is the more usual case, you get a more interesting life and the joys of debate.

Determining substantive significance can involve the making of the qualitative analyst’s equivalent of Type I and Type II errors from statistics: The analyst may decide that something is not significant when in fact it is, or, conversely, the analyst may attribute significance to something that is meaningless. A story illustrates this problem of making judgments about what is really significant.

Halcolm was approached by a woman who handed him something. Without hesitation, Halcolm returned the object to the woman. The many young disciples who followed Halcolm to learn his wisdom began arguing among themselves about the special meaning of this interchange. A variety of interpretations were offered.
When Halcolm heard of the argument among his young followers, he called them together and asked each one to report on the significance of what they had observed. They offered a variety of interpretations. When they had finished he said, “The real purpose of the exchange was to enable me to show you that you are not yet sufficiently masters of observation to know when you have witnessed a meaningless interaction.”

## Logical Analysis

While working inductively, the analyst is looking for emergent patterns in the data. These patterns, as noted in preceding sections, can be represented as dimensions, categories, classification schemes, themes, and categories. Once some dimensions have been constructed, using either participant-generated constructions or analyst-generated constructions, it is sometimes useful to cross-classify different dimensions to generate new insights about how the data can be organized and to look for patterns that may not have been immediately obvious in the initial, inductive analysis. Creating cross-classification matrices is an exercise in logic.

The logical process involves creating potential categories by crossing one dimension or typology with another, and then working back and forth between the data and one’s logical constructions, filling in the resulting matrix. This logical system will create a new typology, all parts of which may or may not actually be represented in the data. Thus, the analyst moves back and forth between the logical construction and the actual data in a search for meaningful patterns.

In the high school dropout program described earlier, the focus of the program was reducing absenteeism, skipping of classes, and tardiness. An external team of consultant/change agents worked with teachers in the school to help them develop approaches to the dropout problem. Observations of the program and interviews with the teachers gave rise to two dimensions. The first dimension distinguished teachers’ beliefs about what kind of programmatic intervention was effective with dropouts, that is, whether they primarily favored maintenance (caretaking or warehousing of kids to just keep the schools running), rehabilitation efforts (helping kids with their problems), or punishment (no longer letting them get away with the infractions they had been committing in the past). Teachers’ behaviors toward dropouts could be conceptualized along a continuum from taking direct responsibility for doing something about the problem, at one end, to shifting responsibility to others at the opposite end. Exhibit 8.8 shows what happens when these two dimensions are crossed. Six cells are created, each of which represents a different kind of teacher role in response to the program.

The evaluator analyst working with these data had been struggling in the inductive analysis to find the patterns that would express the different kinds of teacher roles manifested in the program. He had tried several constructions, but none of them quite seemed to work. The labels he came up with were not true to the data. When he described to me the other dimensions he had generated, I suggested that he cross them, as shown in Exhibit 8.8. When he did, he said that “the whole thing immediately fell into place.” Working back and forth between the matrix and the data, he generated a full descriptive analysis of diverse and conflicting teacher roles.

The description of teacher roles served several purposes. First, it gave teachers a mirror image of their own behaviors and attitudes. It could thus be used to help teachers make more explicit understanding of roles. Second, it made it clear that an order and punishment approach would reduce dropouts in this school; teachers more flexible roles would need to be worked with in different.
agents worked with teachers in help them develop approaches to problem. Observations of the interviews with the teachers distinguished teachers' beliefs about problem was effective, that is, whether they worked maintenance (caretaking of kids to just keep the kids moving), rehabilitation efforts with their problems), or punished longer letting them get away actions they had been committing.

Teachers' behaviors toward could be conceptualized along a line from taking direct responsibility something about the problem, at shifting responsibility to others side end. Exhibit 8.8 shows what these two dimensions are different kinds of teacher role in the program.

An evaluator analyst working with these struggling in the inductive find the patterns that would explain different kinds of teacher roles in the program. He had tried instructions, but none of them true to the data. When he defined the other dimensions he had suggested that he cross them, as Exhibit 8.8. When he did, he said whole thing immediately fell into making sense between the data, he generated a full analysis of diverse and conflicting patterns.

Exhibit 8.8. When he did, he said whole thing immediately fell into making back and forth between the data, he generated a full analysis of diverse and conflicting patterns.

Exhibit 8.8 makes teacher roles more explicit their own understanding of roles. Second, it could be used by the external team of consultants to more carefully gear their programmatic efforts toward different kinds of teachers who were acting out the different roles. The matrix makes it clear that an omnibus strategy for helping teachers establish a program that would reduce dropouts would not work in this school; teachers manifesting different roles would need to be approached and worked with in different ways. Third, the description of teacher roles provided insights into the nature of the dropout problem. Having identified the various roles, the evaluator analyst had a responsibility to report on the distribution of roles in this school and the observed consequences of that distribution.

One must be careful about this kind of logical analysis. It is easy for a matrix to begin to manipulate the data as the analyst is tempted to force data into categories created by the cross-classification to fill out the ma-
trix and make it work. Logical analysis to generate new sensitizing concepts must be tested out and confirmed by the actual data. Such logically derived sensitizing concepts provide conceptual hypotheses to test. Levin-Rozalis (2000), following American philosopher Charles Sanders Pierce of the pragmatic school of thought, suggests labeling the logical generation and discovery of hypotheses and findings abduction to distinguish such logical analysis from data-based inductive analysis and theory-derived deductive analysis.

Denzin (1978b) has explained abduction in qualitative analysis as a combination of inductive and deductive thinking with logical underpinnings:

Naturalists inspect and organize behavior specimens in ways which they hope will permit them to progressively reveal and better understand the underlying problematic features of the social world under study. They seek to ask the question or set of questions which will make that world or social organization understandable. They do not approach that world with a rigid set of preconceived hypotheses. They are initially directed toward an interest in the routine and taken-for-granted features of that world. They ask how it is that the persons in question know about producing orderly patterns of interaction and meaning. . . . They do not use a full-fledged deductive hypothetical scheme in thinking and developing propositions. Nor are they fully inductive, letting the so-called "facts" speak for themselves. Facts do not speak for themselves. They must be interpreted. Previously developed deductive models seldom conform with empirical data that are gathered. The method of abduction combines the deductive and inductive models of proposition development and theory construction. It can be defined as working from consequence back to cause or antecedent. The observer records the occurrence of a particular event, and then works back in time in an effort to reconstruct the events (causes) that produced the event (consequence) in question. (pp. 109-10)

Famous fictional detective Sherlock Holmes relied on abduction more than deduction or induction, at least according to a review by William Sanders (1976) of Holmes’s analytical thinking in The Sociologist as Detective. We’ve already suggested that the qualitative analyst is part scientist and part artist. Why not add the qualitative analyst as detective? The empty cell of a logically derived matrix (the cell created by crossing two dimensions for which no name or label immediately occurs) creates an intersection of a possible consequence and antecedent that begs for abductive exploration and explanation. Each such intersection of consequence and antecedent sensitizes the analyst to the possibility of a category of activity or behavior that either has been overlooked in the data or is logically a possibility in the setting but has not been manifested. The latter cases are important to note because their importance derives from the fact that they did not occur. The next section will look in detail at a process/outcomes matrix ripe with abductive possibilities.

Nick Smith (1980) used a matrix to draw important distinctions among different kinds of evaluation use by asking if "techniques of effective evaluation utilization differ with regard to audience or entity studied." His matrix crossed a programs/policies dimension (what can be studied?) with a program managers/policymakers distinction (who is to be aided?) to show different kinds of utilization in each case. Exhibit 8.9 shows a matrix for mapping stakeholders’ stakes in a program or policy. This matrix can be used to guide data collection as well as analysis. Later this chapter presents a process/outcomes matrix for crossing program processes with as a qualitative analysis.

To study how schools' evaluation processes, Campbell developed a 500-cell matrix that begins (but just begins) to show the limits of what one can do in a single case. Campbell used data collection and analysis to show how the mandated, contractual planning, evaluation system in Minnesota with levels of use (high...
A particular event, and then time in an effort to reconstruct (pp. 109-10)

A traditional detective Sherlock on abduction more than deduction, at least according to a William Sanders (1976) of logical thinking in The Sociola... 

We've already suggested that the qualitative analyst is part scientist Why not add the qualitative? The empty cell of a logic matrix (the cell created by dimensions for which no name didate occurs) creates an impossible consequence and an agenda for abductive exploration. Each such intersection of antecedent sensitizes the possibility of a category of action that either has been over... but has not been manifested. 

Important to note importance derives from the fact that either does not occur. The next section will use a process/outcomes matrix for crossing program processes with program outcomes as a qualitative analysis framework.

To study how schools used planning and evaluation processes, Campbell (1983) developed a 500-cell matrix (Exhibit 8.10) that begins (but just begins) to reach the outer limits of what one can do in three-dimensional space. Campbell used this matrix to guide data collection and analysis in studying how the mandated, statewide educational planning, evaluation, and reporting system in Minnesota was used. She examined 5 levels of use (high school, ... community, district), 10 components of the statewide project (planning, goal-setting, ... student involvement), and 10 factors affecting utilization (personal factor, political factors, ... ). Exhibit 8.10 again illustrates matrix thinking for both data organization and analytical/conceptual purposes. 

Miles and Huberman (1994) have provided a rich source of ideas and illustrations of how to use matrices in qualitative analysis. They include examples of a time-ordered matrix, role-ordered matrix, role-by-time matrix, role-by-group matrix, conceptually clustered matrix, site dynamics matrix, and predictor-outcome matrix, among others. Their Sourcebook provides a variety of ideas for analytical approaches to qualitative data including a variety of concept mapping and visual display techniques. 

Other ways of graphing and mapping findings include concept mapping and cognitive mapping. For a detailed discussion of concept mapping as a way of visually displaying data to facilitate analytic clarity and depicting relationships in a network or system, see Trochim (1989). For an example of cognitive mapping as a way of displaying qualitative results showing the “structure and content of decision schemas” among senior managers, see Clarke and Mackaness (2001). 

A Process/Outcomes Matrix

The linkage between processes and outcomes constitutes such a fundamental issue in many program evaluations that it provides a particularly good focus for illustrating qualitative matrix analysis. As discussed in Chapter 4, qualitative methods can be particularly appropriate for evaluation where program processes, impacts, or both are largely unspecified or difficult to measure. This can be the case because the outcomes are meant to be individualized;
sometimes the program is simply uncertain what its outcomes will be; and, in many programs, neither processes nor impacts have been carefully articulated. Under such conditions, one purpose of the evaluation may be to illuminate program processes, program impacts, and the linkages between the two. This task can be facilitated by constructing a process/outcomes matrix to organize the data.

Exhibit 8.11 (p. 474) shows how such a matrix can be constructed. Major program processes or identified implementation components are listed along the left side. Types or levels of outcomes are listed across the top. The category systems for program processes and outcomes are developed from the data in the same way that other typologies are constructed (see previous sections). The cross-classification of any process with any outcome produces a cell in the matrix; for example, the first cell in Exhibit 8.11 is created by the intersection of process 1 with outcome a. The information that goes in cell 1a (or any other cell in the matrix) describes linkages, patterns, themes, experiences, content, or actual activities that help us understand the relationships between processes and outcomes. Such relationships may have been identified by participants themselves during interviews or discovered by the evaluator in analyzing the data. In either case, the process/outcomes matrix becomes a way of organizing, thinking about, and presenting the qualitative connections between program implementation dimensions and program impacts.

An example will help make the notion of the process/outcomes matrix more concrete. Suppose we have been evaluating a juvenile justice program that places delinquent youth in foster homes. We have visited several foster homes, observed what the home environments are like, and interviewed the juveniles, the foster home parents, and the probation officers. A regularly recurring process theme concerns the importance of “letting kids learn to make their own decisions.” A regularly recurring outcomes theme involves “keeping the kids straight” (reduced recidivism). The question is: What are the program process (“letting kids learn to make their own decisions”) with the outcome (“keeping kids straight”) analysis question: What are the regularity recurring process theme, and the regularly recurring outcomes theme? How do we answer these questions based on the data? How do we present this information in the matrix? How do we organize, think about, and understand how people in the system may have answered this question based on the behaviors and practices.
Qualitative Analysis and Interpretation


C. FACTORS INFLUENCING UTILIZATION

- 1. Planning
- 2. Goal-setting
- 3. Professional evaluation
- 4. Consumer evaluation
- 5. Reporting
- 6. Community involvement
- 7. Student involvement
- 8. Teacher involvement
- 9. Administrative involvement
- 10. School Board involvement

**Policy change**
- 6. Community involvement
- 7. Student involvement
- 8. Teacher involvement
- 9. Administrative involvement
- 10. School Board involvement

**Program change**
- 3. Professional evaluation
- 4. Consumer evaluation
- 5. Reporting

**Behavior change**
- 1. Planning
- 2. Goal-setting

**Components of PER**
- A. LEVEL UTILIZATION
- B. **Program change**
- C. **Behavior change**

**Factors influencing utilization**
- Personal factor
- Political factor
- Organizational factors
- Emotional/psychological factors
- Fracturing of social networks
- Resistance to change
- Administrative style
- Researcher approach

**Consequences**
- Increased recidivism
- Decreased recidivism

**Process-outcomes matrix**
- Helps in organizing, thinking about, and analyzing the qualitative connections and impacts.

**Themes, experiences, and activities**
- help us understand the relationships between program activities and outcomes. Such relationships are often identified by participants in interviews or discovered in analyzing the data. In each process/outcomes matrix, we are looking for data that help us understand the nature and quality of the relationships between the program process and the desired outcome. Moreover, once the process/outcomes descriptive analysis of linkages has been completed, the evaluator is at liberty to offer interpretations and judgments about the nature and quality of this process/outcomes connection.

**Data analysis question**
- What actual decisions do juveniles make that are supposed to lead to reduced recidivism? We then carefully review our field notes and interview quotations looking for data that help us understand how people in the program have answered this question based on their actual behaviors and practices. By describing what juveniles actually make in the program, the decision makers to whom our findings are reported can make their own judgments about the strength or weakness of the linkage between this program process and the desired outcome. Moreover, once the process/outcomes descriptive analysis of linkages has been completed, the evaluator is at liberty to offer interpretations and judgments about the nature and quality of this process/outcomes connection.
An Analysis Example: Recognizing Processes, Outcomes, and Linkages in Qualitative Data

Because of the centrality of the sensitizing concepts “program process” and “program outcome” in evaluation research, it may be helpful to provide a more detailed description of how these concepts can be used in qualitative analysis. How does one recognize a program process? Learning to identify and label program processes is a critical evaluation skill. This sensitizing notion of “process” is a way of talking about the common action that cuts across program activities, observed interactions, and program content. The example I shall use involves data from the wilderness program I evaluated and described in the observations chapter. The program, titled the South Fork Project, used the wilderness arena for professional philosophy and methods education by engaging the participants in their own experiential learning. Participants went from their environments into the wilderness, spending at least one night completely alone in some cases “on solo.” At times, the group was asked to walk alone on solo. At times, the group was asked to walk alone, be distracted from the environment and images by conversations, participants about what they had observed and experienced, and how they felt about the wilderness. Participants write about the wilderness in journals. What do these do in common, and how can these be expressed?

We begin with several abstracting and labeling processes:

- Experiencing the wilderness
- Learning about the wilderness
- Appreciating the wilderness
- Immersion in the environment
- Developing awareness of the wilderness
- Becoming conscious of the wilderness
- Developing sensitivity to the wilderness
- Applying the concepts to the wilderness
- Observing the wilderness

Any of these phrases, each of some verb form (experience, develop, and so on) an expression (wilderness, environment, etc.)
data from the wilderness education program I evaluated and discussed throughout the observations chapter (Chapter 6). That program, titled the Southwest Field Training Project, used the wilderness as a training arena for professional educators in the philosophy and methods of experiential education by engaging those educators in their own experiential learning process. Participants went from their normal urban environments into the wilderness for 10 days at a time, spending at least one day and night completely alone in some wilderness spot "on solo." At times, while backpacking, the group was asked to walk silently so as not to be distracted from the wilderness sounds and images by conversation. In group discussions, participants were asked to talk about what they had observed about the wilderness and how they felt about being in the wilderness. Participants were also asked to write about the wilderness environment in journals. What do these different activities have in common, and how can that commonality be expressed?

We begin with several different ways of abstracting and labeling the underlying process:

- Experiencing the wilderness
- Learning about the wilderness
- Appreciating the wilderness
- Immersion in the environment
- Developing awareness of the environment
- Becoming conscious of the wilderness
- Developing sensitivity to the environment

Any of these phrases, each of which consists of some verb form (experiencing, learning, developing, and so on) and some noun form (wilderness, environment), captures some nuance of the process. The qualitative analyst works back and forth between the data (field notes and interviews) and his or her conception of what it is that needs to be expressed to find the most fitting language to describe the process. What language do people in the program use to describe what those activities and experiences have in common? What language comes closest to capturing the essence of this particular process? What level of generality or specificity will be most useful in separating out this particular set of things from other things? How do program participants and staff react to the different terms that could be used to describe the process?

It's not unusual during analysis to go through several different phrases before finally settling on exact language that will go into a final report. In the Southwest Field Training Project, we began with the concept label "Experiencing the wilderness." However, after several revisions, we finally described the process as "developing sensitivity to the environment" because this broader label permitted us to include discussions and activities that were aimed at helping participants understand how they were affected by and acted in their normal institutional environments. "Experiencing the wilderness" became a specific subprocess that was part of the more global process of "developing sensitivity to the environment." Program participants and staff played a major role in determining the final phrasing and description of this process.

Below are other processes identified as important in the implementation of the program:

- Encountering and managing stress
- Sharing in group settings
- Examining professional activities, needs, and commitments
Assuming responsibility for articulating personal needs
- Exchanging professional ideas and resources
- Formally monitoring experiences, processes, changes, and impacts

As you struggle with finding the right language to communicate themes, patterns, and processes, keep in mind that there is no absolutely "right" way of stating what emerges from the analysis. There are only more and less useful ways of expressing what the data reveal.

Identifying and conceptualizing program outcomes and impacts can involve induction, deduction, and/or logical analysis. Inductively, the evaluator analyst looks for changes in participants, expressions of change, program ideology about outcomes and impacts, and ways that people in the program make distinctions between "those who are getting it" and "those who aren't getting it" (where it is the desired outcome). In highly individualized programs, the statements about change that emerge from program participants and staff may be global. Such outcomes as "personal growth," increased "awareness," and "insight into self" are difficult to operationalize and standardize. That is precisely the reason qualitative methods are particularly appropriate for capturing and evaluating such outcomes. The task for the evaluator analyst, then, is to describe what actually happens to people in the program and what they say about what happens to them. Appendix 8.3 at the end of this chapter presents portions of the report describing the effects on participants of their experiences in the wilderness education program. The data come from in-depth, open-ended interviews. This report excerpt shows how descriptive data (direct quotations) are used to support and explain inductive thematic analysis.

Deductively, the evaluator analyst may draw from outcomes identified in similar programs or from goal statements found in program proposals, brochures, and planning documents that were used to guide data collection.

Logically (or abductively), constructing a process/outcomes matrix can suggest additional possibilities. That is, where data on both program processes and participant outcomes have been sorted, analysis can be deepened by organizing the data through a logical scheme that links program processes to participant outcomes. Such a logically derived scheme was used to organize the data in the Southwest Field Training Project. First, a classification scheme that described different types of outcomes was conceptualized:

(a) changes in skills,
(b) changes in attitudes,
(c) changes in feelings,
(d) changes in behaviors, and
(e) changes in knowledge.

These general themes provided the reader of the report with examples of and insights into the kinds of changes that were occurring and how these changes were perceived by participants to be related to specific program processes. I emphasize that the process/outcomes matrix is merely an organizing tool; the data from participants themselves and from field observations provide the actual linkages between processes and outcomes.

What was the relationship between the program process of "developing sensitivity to the environment" and these individual-level outcomes? Space permits only a few examples from the data.

Skills: "Are you kid-survive without the co-learned how to read load. I learned how to read... You think those are mel in my work? You're da...

Attitudes: "I think it's atten to the space you just keep going through what's around me and how I affect it."

Feelings: "Being out has given me confidence a lot of things I didn't think...

Behaviors: "I use my se- you're going to experience the difference..."

Knowledge: "I know a

Interpreting Findings

Simply observe the qualitative; behaviors of partic...

Interpreting for Meaning

Qualitative interpretations elucidating meanings. Tha...
Interpreting Findings

Skills: "Are you kidding? I learned how to survive without the comforts of civilization. I learned how to read the terrain ahead and pace myself. I learned how to carry a heavy load. I learned how to stay dry when it's raining. I learned how to tie a knot so that it doesn't come apart when pressure is applied. You think those are metaphors for skills I need in my work? You're damn right they are."

Attitudes: "I think it's important to pay attention to the space you're in. I don't want to just keep going through my life oblivious to what's around me and how it affects me and how I affect it."

Feelings: "Being out here, especially on solo, has given me confidence. I know I can handle a lot of things I didn't think I could handle."

Behaviors: "I use my senses in a different way out here. In the city you get so you don't pay much attention to the noise and the sounds. But listening out here I've also begun to listen more back there. I touch more things too, just to experience the different textures."

Knowledge: "I know about how this place was formed, its history, the rock formations, the effects of the fires on the vegetation, where the river comes from and where it goes."

A different way of thinking about organizing data around outcomes was to think of different levels of impact: effects at the individual level, effects on the group, and effects on the institutions from which participants came into the program. The staff hoped to have impacts at all of these levels. Thus, it also was possible to organize the data by looking at what themes emerged when program processes were crossed with levels of impact. How did "developing sensitivity to the environment" affect individuals? How did the process of "developing sensitivity to the environment" affect the group? What was the effect of "developing sensitivity to the environment" on the institutions to which participants returned after their wilderness experiences? The process/outcomes matrix thus becomes a way of asking questions of the data, an additional source of focus in looking for themes and patterns in hundreds of pages of field notes and interview transcriptions.

Interpreting for Meaning

Qualitative interpretation begins with elucidating meanings. The analyst examines a story, a case study, a set of interviews, or a collection of field notes and asks, What does this mean? What does this tell me about the nature of the phenomenon of interest? In asking these questions, the analyst works back and forth between the data or story (the evidence) and his or her own perspective and understandings to make sense of the ev-
idence. Both the evidence and the perspective brought to bear on the evidence need to be elucidated in this choreography in searching of meaning. Alternative interpretations are tried and tested against the data.

For example, when we analyzed follow-up interviews with participants who had gone through intensive community leadership training, we found a variety of expressions of uncertainty about what they should do with their training. In the final day of a six-day retreat, after learning how to assess community needs, work with diverse groups, communicate clearly, empower people to action, and plan for change, they were cautioned to go easy in transitioning back to their communities and take their time in building community connections before taking action. What program staff meant as a last-day warning about not returning to the community as a bull in a china shop and charging ahead destructively had, in fact, paralyzed the participants and made them afraid to take any action at all. The program, which intended to poise participants for action, had inadvertently left graduates in "action paralysis" for fear of making mistakes. That meaning, "action paralysis," emerged from the data analysis through interpretation. No one used that specific phase. Rather, we interpreted that as the essence of what interviewees were reporting through a haze of uncertainties, ambiguities, worried musings, and wait-and-see-before-acting reflections.

Narrative analysis (see Chapter 3) has focused specifically on how to interpret stories, life history narratives, historical memoirs, and creative nonfiction to reveal cultural and social patterns through the lens of individual experiences. This "biographical turn in social science" (Chamberlayne, Bornat, and Wengraf 2000) or "narrative turn" in qualitative inquiry (Bochner 2001) honors people's stories as data that can stand on their own as pure description of experience or be analyzed for connections between the psychological, sociological, cultural, political, and dramaturgic dimensions of human experience to reveal larger meanings. Much of the analytical focus in narrative studies concerns the nature of interpretation (Denzin 1989a, 1989b, 1997b). How to interpret stories and, more specifically, the texts that tell the stories is at the heart of narrative analysis (Lieblich, Tuval-Mashiach, and Zilber 1998). Meaning-making also comes from comparing stories and cases and can take the form of inquiring into and interpreting causes, consequences, and relationships.

Comparisons, Causes, Consequences, and Relationships

Thus far, this chapter has emphasized the tasks of organization, description, and linking. Even the matrix analyses just discussed were aimed at organizing and describing the themes, patterns, activities, and content of a study rather than elucidating causal linkages between processes and outcomes. To the extent that you are describing the causal linkages suggested by and believed in by those you've interviewed, you haven't crossed the line from description into causal interpretation. And, indeed, much qualitative inquiry stops with the presentation of case data and cross-case descriptive comparisons aimed at enhancing understanding rather than explaining "why." Stake (1995) has emphasized that "explanations are intended to promote understanding and understanding is sometimes expressed in terms of explanation—but the two aims are epistemologically quite different . . . , a difference between case studies seeking to identify cause and effect relationships and those seeking understanding of human .

Comparative Pattern Analysis

"Your bright red skin is a delight to see. But the seeds inside are what make you m .

Comparative Analysis

Appreciating and respecting, once case studies have been developed and supported, the distinction and description are clear, and it is appropriate, if desired, to making comparisons of causes, consequences, and relationships.

Statements about what lead to other things, for example of a program product and how processes lead to natural areas for interpretation. When careful study of ideas about causal links is reason to deny those study's results the benefits.

What is important is that s
Qualitative Analysis and Interpretation

An as pure description of events analyzed for connections with the analytical focus in narratives the nature of interpretation (1989a, 1989b, 1997b). How to analyze and, more specifically, the stories is at the heart of narratives (Lieblich, Tuval-Mashiach, 1998). Meaning-making also comparing stories and cases and inquiring into and interpreting consequences, and relationships:

Comparative Pattern Analysis

"Your bright red skin is a delight to see. But the seeds inside are what make you like me."

"As a child I was told never to dare, an apple and orange—one could not compare. To find we're alike I scarcely can bear. Don't tell me we also are like a green pear."

COMPARING APPLES AND ORANGES

© 2002 Michael Quinn Patton and Michael Cochran

understanding of human experience" (p. 38). Appreciating and respecting this distinction, once case studies have been written and descriptive typologies have been developed and supported, the tasks of organizing and describing the patterns, activities, and content of a system are more than elucidating causal linkages or processes and outcomes. To only be describing the causal processes and outcomes is not enough. If you are describing the causal processes and outcomes, you haven’t moved from description into causal processes and outcomes. And, indeed, much qualitative research is concerned with the presentation of description, with greatly enhancing understanding of the "why." Stake (1995) noted that "explanations are inherently understood and understood in a way that sometimes expressed in the data—but the two aims are really quite different... a different to us, the difference between seeking to identify causal relationships and those seeking relationships and those seeking clearly qualified as what they are: interpretation and hypothesizing.

A researcher who has lived in a community for an extensive period of time will likely have insights into why things happen as they do there. A qualitative analyst who has spent hours interviewing people will likely come away from the analysis with possible explanations for how the phenomenon of interest takes the forms and has the effects it does. The evaluator who has studied a program, lived with the data from the field, and reflected at length about the patterns and themes that run through the data is in as good a position as anyone else at that point to speculate about meanings, make conjectures about significance, and offer hypotheses about relationships. Moreover, if decision makers and evaluation users have
asked for such information—and in my experience they virtually always welcome these kinds of analyses—there is no reason not to share them with them thinking about their own causal presuppositions and hypotheses and to explore what the data do and do not support in the way of interconnections and potential causal relationships.

Lofland’s (1971) musings are helpful in clarifying the role of causal speculation in qualitative analysis. He argued that the strong suit of the qualitative researcher is the ability “to provide an orderly description of rich, descriptive data” (p. 59); the consideration of causes and consequences using qualitative data should be a “tentative, qualified, and subsidiary task” (p. 62).

It is perfectly appropriate that one be curious about causes, so long as one recognizes that whatever account or explanation he develops is conjecture. In more legitimacy-conferring terms, such conjectures are called hypotheses or theories. It is proper to devote a portion of one’s report to conjectured causes of variations so long as one clearly labels his conjectures, hypotheses or theories as being that. (Lofland 1971:62)

Interpretation, by definition, involves going beyond the descriptive data. Interpretation means attaching significance to what was found, making sense of findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meanings, and otherwise imposing order on an unruly but surely patterned world. The rigors of interpretation and bringing data to bear on explanations include dealing with rival explanations, accounting for disconfirming cases, and accounting for data irregularities as part of testing the viability of an interpretation. All of this is expected—and appropriate—as long as the researcher owns the interpretation and makes clear the difference between description and interpretation.

Schlechty and Noblit (1982) concluded that an interpretation may take one of three forms:

- Making the obvious obvious
- Making the obvious dubious
- Making the hidden obvious

This captures rather succinctly what research colleagues, policymakers, and evaluation stakeholders expect: (1) Confirm what we know that is supported by data, (2) disabuse us of misconceptions, and (3) illuminate important things that we didn’t know but should know. Accomplish these three things and those interested in the findings can take it from there.

A particular limitation as one moves into the arena of interpretations about causes, consequences, and relationships concerns our capacity to escape simplistic linear modeling. We fall back on the linear assumptions of much quantitative analysis and begin to specify isolated independent and dependent variables that are mechanically linked together out of context. In contrast, the challenge of qualitative inquiry involves portraying a holistic picture of what the phenomenon, setting, or program is like and struggling to understand the fundamental nature of a particular set of activities and people in a specific context. “Particularization is an important aim, coming to know the particularity of the case” (Stake 1995:39). Simple statements of linear relationships may be more distorting than illuminating. The ongoing challenge, paradox, and dilemma of qualitative analysis engage us in constantly moving back and forth between the phenomenon of interest and our abstractions of that phenomenon, between the de-
rather owns the interpretation.
Noblitt (1982) concluded that the difference between interpretation may take one of three obvious obvious obvious dubious
rather succinctly what re-
s, policymakers, and evalu-
ators expect: (1) Confirm what supported by data, (2) dis-
ceptions, and (3) illumi-
ons that we didn’t know
Accomplish these three
interested in the findings
imation as one moves into
pretations about causes, and relationships concerns
cape simplistic linear mod-
ik on the linear assumptions
ative analysis and begin to
dependent and depend-
at are mechanically linked
Ontext. In contrast, the chal-
ury inquiry involves por-
picture of what the phenom-
er program is like and un-
derstand the fundamental
cular set of activities and
context. ‘Particularization
aim, coming to know the
the case’ (Stake 1995:39).
ts of linear relationships
osting than illuminating.
allenge, paradox, and di-
ative analysis engage us in
ning back and forth between
of interest and our abstrac-
omenon, between the de-
scriptions of what has occurred and our inter-
pretations of those descriptions, between the complexity of reality and our simplifica-
tions of those complexities, between the circularities and interdependencies of hu-
activity and our need for linear, ordered statements of cause-effect.
Gregory Bateson traced at least part of the source of our struggle to the ways we have been taught to think about things. We are told that a noun is the "name of a person, place, or thing." We are told that a verb is an "action word." These kinds of definitions, Bateson argues, were the beginning of teaching us that "the way to define something is by what it supposedly is in itself—not by its relations to other things."

Today all that should be changed. Children could be told a noun is a word having a certain relationship to a predicate. A verb has a certain relationship to a noun, its subject, and so on. Relationship could now be used as a basis for definition, and any child could then see that there is something wrong with the sentence, "'Go' is a verb." ... We could have been told something about the pattern which connects: that all communication necessitates context, and that without context there is no meaning. (Bateson 1978:13)

Without belaboring this point about the difference between linear causal analysis (x causes y) and a holistic perspective that describes the interdependence and interrelat-
edness of complex phenomena, I would sim-
ply offer the reader a Sufi story. I suggest trying to analyze the data represented by the story in two ways. First, try to isolate specific variables that are important in the story, deciding which are the independent and which the dependent variables, and then write a statement of the form: These things caused this thing. Then read the story again. For the second analysis, try to distinguish among and label the different meanings of the situation expressed by the characters observed in the story, then write a statement of the form: These things and these things came together to create ___. Don’t try to decide that one approach is right and the other is wrong; simply try to experience and understand the two approaches. Here’s the case data, otherwise known as a story.

Walking one evening along a deserted road, Mulla Nasrudin saw a troop of horsemen coming towards him. His imagination started to work; he imagined himself captured and sold as a slave, or robbed by the oncoming horsemen, or conscripted into the army. Fearing for his safety, Nasrudin bolted, climbed a wall into a graveyard, and lay down in an open tomb.

Puzzled at this strange behavior the men—honest travelers—pursued Nasrudin to see if they could help him. They found him stretched out in the grave, tense and quiver-
"What are you doing in that grave? We saw you run away and see that you are in a state of great anxiety and fear. Can we help you?"

Seeing the men up close Nasrudin realized that they were honest travelers who were gen-
uinely interested in his welfare. He didn’t want to offend them or embarrass himself by telling them how he had misperceived them, so Nasrudin simply sat up in the grave and said, "You ask what I’m doing in this grave. If you must know, I can tell you only this: I am here because of you, and you are here because of me." (adapted from Shah 1972:16)

5 Theory-Based Analysis Approaches
Thus far, this chapter has been looking at generic approaches to qualitative analysis.
The next sections examine how certain theoretical and philosophical perspectives affect analysis. Every perspective presented in Chapter 3 on theoretical orientations has implications for analysis in that the fundamental premises articulated in a theoretical framework or philosophy are meant to inform how one makes sense of the world. Likewise, the various applications in Chapter 4 affect analysis in that they shape the questions that guide the inquiry and therefore the analysis. While Chapters 3 and 4 were presented early in this book to help researchers and evaluators select frameworks to guide their inquiry, those chapters also offer frameworks for analyzing data. The two sections that follow contrast two of the major theory-oriented analytical approaches discussed in Chapter 3, but this time focusing on analysis. The two contrasting approaches are phenomenological analysis and grounded theory.

**Phenomenological Analysis**

Phenomenology asks for the very nature of a phenomenon, for that which makes a somethingsomething what it is—and without which it could not be what it is.

—Max Van Manen (1990:10)

Phenomenological analysis seeks to grasp and elucidate the meaning, structure, and essence of the lived experience of a phenomenon for a person or group of people. Before I present the steps of one particular approach to phenomenological analysis, it is important to note that phenomenology has taken on a number of meanings, has a number of forms, and encompasses varying traditions including transcendental phenomenology, existential phenomenology, and hermeneutic phenomenology (Schwandt et al., 2001). Moustakas (1994:13) further distinguishes empirical phenomenological from transcendental phenomenology. Gubrium and Holstein (2000:488) add the label "social phenomenology," Van Manen (1990) prefers "hermeneutical phenomenological reflection." Sonnemann (1954:344) introduced the term "phenomenography" to label phenomenological investigation aimed at "a descriptive recording of immediate subjective experience as reported." Harper (2000:727) talks of looking at images through "the phenomenological mode," that is, from the perspective of the self: "from the phenomenological perspective, photographs express the artistic, emotional, or experiential intent of the photographer." Add to this confusion of terminology the difficulty of distinguishing phenomenological philosophy from phenomenological methods and phenomenological analysis, all of which adds to tensions and contradictions in qualitative inquiry (Gergen and Gergen 2000).

The use of the term phenomenology in contemporary versions of qualitative inquiry in North America tends to reflect a subjectivist, existentialist, and non-critical emphasis not present in the Continental tradition represented in the work of Husserl and Heidegger. The latter viewed the phenomenological project, so to speak, as an effort behind subjective experience to uncover genuine, objective nature. Phenomenology is commonly discussed in qualitative research, emphasizing the need to identify and describe the subjective experiences of respondents.
While Chapters 3 and 4 briefly in this book to help researchers select frameworks for analyzing data. The two contrasting approaches to phenomenological analysis are presented, but this time focused on everyday experience from the point of view of the subject, and it shuns critical evaluation of forms of social life. (Schwandt 2001:192)

These distinctions and variations in use make it relatively meaningless to describe “phenomenological analysis” as if it constituted a single approach or perspective. I have chosen to include here the phenomenological approach to analysis taken by Clark Moustakas and Bruce Douglass of The Union Institute Graduate College (Cincinnati, Ohio) and the Center for Humanistic Studies (Detroit, Michigan). More than most approaches, they focus on the analytical process itself (Douglass and Moustakas 1985). Moreover, the extensive writings of Moustakas on phenomenology (1961, 1988, 1990b, 1994, 1995) are readily accessible and highly readable. Finally, they are esteemed colleagues whose work I know, appreciate, and, no small point when dealing with phenomenology, I think I understand. They have developed an outline of phenomenological analysis that they use in graduate seminars. Much of this section is based on their work and that of their students. Before presenting the steps and procedures of phenomenological analysis let’s get deeper into the perspective and language.

Husserl’s transcendental phenomenology is intimately bound up in the concept of intentionality. In Aristotelian philosophy the term intention indicates the orientation of the mind to its object; the object exists in the mind in an intentional way. . . .

Intentionality refers to consciousness, to the internal experience of being conscious of something; thus the act of consciousness and the object of consciousness are intentionally related. Included in understanding of consciousness are important background factors.
such as stirrings of pleasure, shapings of judgment, or incipient wishes.

Knowledge of intentionality requires that we be present to ourselves and things in the world, that we recognize that self and world are inseparable components of meaning.

Consider the experience of joy on witnessing a beautiful landscape. The landscape is the matter. The landscape is also the object of the intentional act, for example, its perception in consciousness. The matter enables the landscape to become manifest as an object rather than merely exist in consciousness.

The interpretive form is the perception that enables the landscape to appear, thus the landscape is self-given; my perception creates it and enables it to exist in my consciousness. The objectifying quality is the actuality of the landscape's existence, as such, while the non-objectifying quality is a joyful feeling evoked in me by the landscape.

Every intentionality is composed of a nomea and noesis. The nomea is not the real object but the phenomenon, not the tree but the appearance of the tree. The object that appears in perception varies in terms of when it is perceived, from what angle, with what background of experience, with what orientation of wishing, willing, or judging, always from the vantage point of the perceiving individual.

Every intentional experience is also noetic.

In considering the nomea-noesis correlate, the "perceived as such" is the nomea; the "perfect self-evidence" is the noesis. Their relationship constitutes the intentionality of consciousness. For every nomea, there is a noesis; for every noesis, there is a nomea. On the noematic side is the uncovering and explication, the unfolding and becoming distinct, the clearing of what is actually presented in consciousness. On the noetic side is an explication of the intentional processes themselves.

... Summarizing the challenges of intentionality, the following processes stand out:

1. Explicating the sense in which our experiences are directed;
2. Discerning the features of consciousness that are essential for the individuation of objects (real or imaginary) that are before us in consciousness (Noema);
3. Explicating how beliefs about such objects (real or imaginary) may be acquired, how it is that we are experiencing what we are experiencing (Noesis); and
4. Integrating the noematic and noetic correlates of intentionality into meanings and essences of experience. (Moustakas 1994:28-32)

If those are the challenges, what are the steps for meeting them? The first step in phenomenological analysis is called epoche.

Epoche is a Greek word meaning to refrain from judgment, to abstain from or stay away from the everyday, ordinary way of perceiving things. In a natural attitude we hold knowledge judgmentally; we presuppose that what we perceive in nature is actually there and remains there as we perceive it. In contrast, Epoche requires a new way of looking at things, a way that requires that we learn to see what stands before our eyes, what we can distinguish and describe.

In the Epoche, the everyday understandings, judgments, and knowings are set aside, and the phenomena are revisited, visually, naively, in a wide-open sense, from the vantage point of a pure or transcendental ego.

(Moustakas 1994:33)
In taking on the perspective of *epoche*, the researcher looks inside to become aware of personal bias, to eliminate personal involvement with the subject material, that is, eliminate, or at least gain clarity about, preconceptions. Rigor is reinforced by a "phenomenological attitude shift" accomplished through *epoche*.

The researcher examines the phenomenon by attaining an attitudinal shift. This shift is known as the phenomenological attitude. This attitude consists of a different way of looking at the investigated experience. By moving beyond the natural attitude or the more prosaic way phenomena are imbued with meaning, experience gains a deeper meaning. This takes place by gaining access to the constituent elements of the phenomenon and leads to a description of the unique qualities and components that make this phenomenon what it is. In attaining this shift to the phenomenological attitude, *epoche* is a primary and necessary phenomenological procedure.

According to Ihde (1979), *epoche* requires that looking precede judgment and that judgment of what is "real" or "most real" be suspended until all the evidence (or at least sufficient evidence) is in (p. 36). As such, *epoche* is an ongoing analytical process rather than a single fixed event. The process of *epoche* epitomizes the data-based, evidential, and empirical (vs. empiricist) research orientation of phenomenology.

Following *epoche*, the second step is phenomenological reduction. In this analytical process, the researcher "brackets out" the world and presuppositions to identify the data in pure form, uncontaminated by extraneous intrusions.

Bracketing is Husserl's (1913) term. In bracketing, the researcher holds the phenomenon up for serious inspection. It is taken out of the world where it occurs. It is taken apart and dissected. Its elements and essential structures are uncovered, defined, and analyzed. It is treated as a text or a document; that is, as an instance of the phenomenon that is being studied. It is not interpreted in terms of the standard meanings given to it by the existing literature. Those preconceptions, which were isolated in the deconstruction phase, are suspended and put aside during bracketing. In bracketing, the subject matter is confronted, as much as possible, on its own terms. Bracketing involves the following steps:

1. Locate within the personal experience, or self-story, key phrases and statements that speak directly to the phenomenon in question.
2. Interpret the meanings of these phrases, as an informed reader.
3. Obtain the subject's interpretations of these phrases, if possible.
4. Inspect these meanings for what they reveal about the essential, recurring features of the phenomenon being studied.
5. Offer a tentative statement, or definition, of the phenomenon in terms of the essential...
tial recurring features identified in step 4. (Denzin 1989b:55-56)

Once the data are bracketed, all aspects of the data are treated with equal value, that is, the data are "horizontalized." The data are spread out for examination, with all elements and perspectives having equal weight. The data are then organized into meaningful clusters. Then the analyst undertakes a delimitation process whereby irrelevant, repetitive, or overlapping data are eliminated. The researcher then identifies the invariant themes within the data in order to perform an "imaginative variation" on each theme. Douglass has described this as "moving around the statue" to see the same object from differing views. Through imaginative variation, the researcher develops enhanced or expanded versions of the invariant themes.

Using these enhanced or expanded versions of the invariant themes, the researcher moves to the textural portrayal of each theme—a description of an experience that doesn't contain that experience (i.e., the feelings of vulnerability expressed by rape victims). The textural portrayal is an abstraction of the experience that provides content and illustration, but not yet essence.

Phenomenological analysis then involves a "structural description" that contains the "bones" of the experience for the whole group of people studied, "a way of understanding what the coresearchers as a group experience when they experience" (Moustakas 1994:142). In the structural synthesis, the phenomenologist looks beneath the affect inherent in the experience to deeper meanings for the individuals who, together, make up the group.

The final step requires "an integration of the composite textual and composite structural descriptions, providing a synthesis of the meanings and essences of the experience" (Moustakas 1994:144). In summary, the primary steps of the Moustakas transcendental phenomenological model are *epoche*, phenomenological reduction, imaginative variation, and synthesis of texture and structure. Other detailed analytical techniques are used within each of these stages (see Moustakas 1994:180-81).

Heuristic inquiry (Moustakas 1990b) involves a somewhat different analytical process. The heuristic process of phenomenological inquiry is a highly personal process. Moustakas describes five basic phases in the heuristic process of phenomenological analysis: immersion, incubation, illumination, explication, and creative synthesis.

Immersion is the stage of steeping oneself in all that is, of contacting the texture, tone, mood, range, and content of the experience. This state "requires my full presence, to savour, appreciate, smell, touch, taste, feel, know without concrete goal or purpose" (Moustakas 1981:56). The researcher's total life and being are centered in the experience. He or she becomes totally involved in the world of the experience, questioning, mediating, dialoging, daydreaming, and indwelling.

The second state, incubation, is a time of "quiet contemplation" where the researcher waits, allowing space for awareness, intuitive or tacit insights, and understanding. In the incubation stage, the researcher deliberately withdraws, permitting meaning and awareness to awaken in their own time. One "must permit the glimmerings and awakenings to form, allow the birth of understanding to take place in its own readiness and completeness" (Moustakas 1981:50). This stage leads the way toward a clear and profound awareness of the experience and its meanings.

In the phase of illumination, expanding awareness and deepening meaning bring new clarity of knowing. Critical textures and structures are revealed so that the experience is known in all of its particulars. The experience takes new understanding grows. Themes emerge, forming clusters of meanings and new visions appear.

In the explication phase, a full unfolding of the experience is depicted. New connections are further explored into themes and primary themes of the heuristic analyst refine and discovered relations.

It is an organization of the clarification of patterns, visualization of concrete results for oneself, an integration for oneself, and a refinement results for oneself (Craig 1990:113).

What emerges is a deepening and a portrayal of the life participated in the study ready now to communicate and meaningful way is the bringing together have emerged into a totalizing patterns and relationships. This points the way for new meanings, a new vision of the fundamental richness and the experiencing pictured and communicated way. In heuristic sights and experiences of primary, including drawing a line that is deeply internal.

These brief outlines of critical and heuristic analysis than hint at the in-depth that is intended. The pur...
en is known in all of its essential parameters. The experience takes on a vividness and understanding grows. Themes and patterns emerge, forming clusters and parallels. New life and new visions appear along with new discoveries.

In the explication phase, other dimensions of meanings are added. This phase involves a full unfolding of the experience. Through focusing, self-dialogue, and reflection, the experience is depicted and further delineated. New connections are made through further explorations into universal elements and primary themes of the experience. The heuristic analyst refines emergent patterns and discovered relationships.

It is an organization of the data for oneself, a clarification of patterns for oneself, a conceptualization of concrete subjective experience for oneself, an integration of generic meanings for oneself, and a refinement of all these results for oneself. (Craig 1978:52)

What emerges is a depiction of the experience and a portrayal of the individuals who participated in the study. The researcher is ready now to communicate findings in a creative and meaningful way. Creative synthesis is the bringing together of the pieces that have emerged into a total experience, showing patterns and relationships. This phase points the way for new perspectives and meanings, a new vision of the experience. The fundamental richness of the experience and the experiencing participants is captured and communicated in a personal and creative way. In heuristic analysis, the insights and experiences of the analyst are primary, including drawing on "tacit" knowledge that is deeply internal (Polanyi 1967).

These brief outlines of phenomenological and heuristic analysis can do no more than hint at the in-depth living with the data that is intended. The purpose of this kind of disciplined analysis is to elucidate the essence of experience of a phenomenon for an individual or group. The analytical vocabulary of phenomenological analysis is initially alien, and potentially alienating, until the researcher becomes immersed in the holistic perspective, rigorous discipline, and paradigmatic parameters of phenomenology. As much as anything this outline reveals the difficulty of defining and sequencing the internal intellectual processes involved in qualitative analysis more generally.

Grounded Theory

Chapter 3 provided an overview of grounded theory in the context of other theoretical perspectives such as ethnography, constructivism, phenomenology, and hermeneutics. Norman K. Denzin, coeditor of the Handbook of Qualitative Research and the journal Qualitative Inquiry, has called grounded theory "the most influential paradigm for qualitative research in the social sciences today" (1997a:18). As I noted in Chapter 3, grounded theory has opened the door to qualitative inquiry in many traditional academic social science and education
Thinking comparatively as a technique.

Theoretical comparisons (comparativ- 
es) for looking at something rather than naming or classifying through examination of the coexisting dimensional levels. If the same within the data, then we use these tools. However, being always evident to the cause we (as human being our interpretations developing construct“ an event, in there are times when the have to stand back and asking this question, we consciously, to draw on previous do know to make compar (Corbin 1998:80-81)

In addition to comfort, objectivity, grounded systematic rigor and the initial design, through data analysis, culminating in the

By systematic, I still mean step of the way; every specifically so the reader know by which the published The bounty of adhe grounded theory method through the stages to waregrounded theory fits, we Grounded theory produces and continually resolves through sorting the const the integration of the theory is a package, a lock-s the researcher from a “k become a theorist with a theory that accounts for a substantive area. The re

departments, especially as a basis for doctoral dissertations, in part, I believe, because of its overt emphasis on the importance of and specific procedures for generating theory. In addition, I suspect its popularity (Glaser 2000) may owe much to the fact that it unabashedly admonishes the researcher to strive for “objectivity.” The postmodern attack on objectivity has found its way into qualitative inquiry through constructivism, hermeneutic interpretivism, and the emphasis on subjective experience in phenomenology. Those social scientists and academics who find some value in the methods of qualitative inquiry through constructivism and interpretivism can find comfort in the attention paid to objectivity in grounded theory.

Fortunately, over the years, researchers have learned that a state of complete objectivity is impossible and that in every piece of research—quantitative or qualitative—there is an element of subjectivity. What is important is to recognize that subjectivity is an issue and researchers should take appropriate measures to minimize its intrusion into their analyses.

... Over the years, we have wrestled with the problem of objectivity and have developed some techniques to increase our awareness and help us control intrusion of bias into analysis while retaining sensitivity to what is being said in the data. (Strauss and Corbin 1998:43)
Thinking comparatively is one such technique.

Theoretical comparisons are tools (a list of properties) for looking at something somewhat objectively rather than naming or classifying without a thorough examination of the object at the property and dimensional levels. If the properties are evident within the data, then we do not need to rely on these tools. However, because details are not always evident to the "naked" eye, and because we (as human beings) are so fallible in our interpretations despite our attempts to "deconstruct" an event, incident, or interview, there are times when this is not so easy and we have to stand back and ask, "What is this?" In asking this question, we begin, even if unconsciously, to draw on properties from what we do know to make comparisons. (Strauss and Corbin 1998:80-81)

In addition to comfort with striving for objectivity, grounded theory emphasizes systematic rigor and thoroughness from initial design, through data collection and analysis, culminating in theory generation.

By systematic, I still mean systematic every step of the way; every stage done systematically so the reader knows exactly the process by which the published theory was generated. The bounty of adhering to the whole grounded theory method from data collection through the stages to writing, using the constant comparative method, shows how well grounded theory fits, works and is relevant. Grounded theory produces a core category and continually resolves a main concern, and through sorting the core category organizes the integration of the theory. . . . Grounded theory is a package, a lock-step method that starts the researcher from a "know nothing" to later become a theorist with a publication and with a theory that accounts for most of the action in a substantive area. The researcher becomes an expert in the substantive area. . . . And if an incident comes his way that is new he can humbly through constant comparisons modify his theory to integrate a new property of a category . . .

Grounded theory methodology leaves nothing to chance by giving you rules for every stage on what to do and what to do next. If the reader skips any of these steps and rules, the theory will not be as worthy as it could be. The typical falling out of the package is to yield to the thrill of developing a few new, capturing categories and then yielding to use them in unending conceptual description and incident tripping rather than analysis by constant comparisons. (Glaser 2001:12)

In their book on techniques and procedures for developing grounded theory, Strauss and Corbin (1998:13) emphasize that analysis is the interplay between researchers and data, so what grounded theory offers as a framework is a set of "coding procedures" to "help provide some standardization and rigor" to the analytical process. Grounded theory is meant to "build theory rather than test theory." It strives to "provide researchers with analytical tools for handling masses of raw data." It seeks to help qualitative analysts "consider alternative meanings of phenomena." It emphasizes being "systematic and creative simultaneously." Finally, it elucidates "the concepts that are the building blocks of theory." Grounded theory operates from a correspondence perspective in that it aims to generate explanatory propositions that correspond to real-world phenomena. The characteristics of a grounded theorist, they posit, are these:

1. The ability to step back and critically analyze situations
2. The ability to recognize the tendency toward bias
3. The ability to think abstractly
4. The ability to be flexible and open to helpful criticism
5. Sensitivity to the words and actions of respondents
6. A sense of absorption and devotion to work process. (Strauss and Corbin 1998:7)

Grounded theory begins with basic description, moves to conceptual ordering (organizing data into discrete categories "according to their properties and dimensions and then using description to elucidate those categories," p. 19), and then theorizing ("conceiving or intuiting ideas—concepts—then also formulating them into a logical, systematic, and explanatory scheme," p. 21).

In doing our analyses, we conceptualize and classify events, acts, and outcomes. The categories that emerge, along with their relationships, are the foundations for our developing theory. This abstracting, reducing, and relating is what makes the difference between theoretical and descriptive coding (or theory building and doing description). Doing line-by-line coding through which categories, their properties, and relationships emerge automatically takes us beyond description and puts us into a conceptual mode of analysis. (Strauss and Corbin 1998:66)

Strauss and Corbin (1998) have defined terms and processes in ways that are quite specific to grounded theory. It is informative to compare the language of grounded theory with the language of phenomenological analysis presented in the previous section. Here’s a sampling of important terminology.

**Microanalysis:** “The detailed line-by-line analysis necessary at the beginning of a study to generate initial categories (with their properties and dimensions) and to suggest relationships among categories; a combination of open and axial coding” (p. 57).

**Theoretical sampling:** “Sampling on the basis of the emerging concepts, with the aim being to explore the dimensional range or varied conditions along which the properties of concepts vary” (p. 73).

**Theoretical saturation:** “The point in category development at which no new properties, dimensions, or relationships emerge during analysis” (p. 143).

**Range of variability:** “The degree to which a concept varies dimensionally along its properties, with variation being built into the theory by sampling for diversity and range of properties” (p. 143).

**Open coding:** “The analytic process through which concepts are identified and their properties and dimensions are discovered in data” (p. 101).

**Axial coding:** “The process of relating categories to their subcategories, termed ‘axial’ because coding occurs around the axis of the category, linking categories of the level of properties and dimensions” (p. 123).

**Relational statements:** “We call these initial hunches about how concepts relate ‘hypotheses’ because they link two or more concepts, explaining the what, why, where, and how of phenomena” (p. 139).

As noted in introducing this section, comparative analysis constitutes a central feature of grounded theory development. Making *theoretical comparisons*—systematically and creatively—engages the analyst in raising questions and discovering properties and dimensions that are by increasing research and theoretical comparison techniques used when doing analysis. Such comparisons establish *variations* in the pattern of data. It is not just one pattern in which we are interested, but how that pattern varies, which is discerned through properties and dimensions” (p. 67). Strauss and Corbin (1998) offer specific techniques for theoretical comparison, for example:

This indicates that a column or “upside down” perspective on the event interaction. In other words, or extremes to bring out the systematic and right comparison, for example:

In the course of conducting theory analysis, one needs to ascend to a core underlying pattern. Formal theory ascended to a core underlying level, but the theory can be put on the table, and research keeps comparing out what is going on and what patterns are. (Glaser 2004)

Glaser (2000) worries that the breakthrough of grounded theory has been a matter of lower-level theorists completing the full job. Too many analysts, he warns, are satisfied they’ve merely generated theory bits are a bit of the tentative theory that a person sentence or so...
ties and dimensions that might be in the data by increasing researcher sensitivity” (p. 67). Theoretical comparisons are one of the techniques used when doing microscopic analysis. Such comparisons enable “identification of variations in the patterns to be found in the data. It is not just one form of a category or pattern in which we are interested but also how that pattern varies dimensionally, which is discerned through a comparison of properties and dimensions under different conditions” (p. 67). Strauss and Corbin (1998) offer specific techniques to increase the systematic and rigorous processes of comparison, for example, “the flip-flop technique”:

This indicates that a concept is turned “inside out” or “upside down” to obtain a different perspective on the event, object, or actions/interaction. In other words, we look at opposites or extremes to bring out significant properties. (p. 94)

In the course of conducting a grounded theory analysis, one moves from lower-level concepts to higher-level theorizing:

Data go to concepts, and concepts get transcended to a core variable, which is the underlying pattern. Formal theory is on the fourth level, but the theory can be boundless as the theory analysis, one moves from lower-level theorizing without completing the full job. Too many qualitative analysts, he warns, are satisfied to stop when they’ve merely generated “theory bits.”

Theory bits are a bit of theory from a substantive theory that a person will use briefly in a sentence or so. . . .

Theory bits come from two sources. First, they come from generating one concept in a study and conjecturing without generating the rest of the theory. With the juicy concept, the conjecture sounds grounded, but it is not; it is only experiential. Second, theory bits come from a generated substantive theory. A theory bit emerges in normal talk when it is impossible to relate the whole theory. So, a bit with grab is related to the listener. The listener can then be referred to an article or a report that describes the whole theory. . . .

Grounded theory is rich in imageric concepts that are easy to apply “on the fly.” They are applied intuitively, with no data, with a feeling of “knowing” as a quick analysis of a substantive incident or area. They ring true with great credibility. They empower conceptually and perceptually. They feel theoretically exciting handles of explanation. They can run way ahead of the structural constraints of research. They are simple one or two variable applications, as opposed to being multivariate and complex. . . . They are quick and easy. They invade social and professional conversations as colleagues use them to sound knowledgeable. . . . The danger, of course, is that they might be just plain wrong or irrelevant unless based in a grounded theory. Hopefully, they get corrected as more data come out. The grounded theorist should try to fit, correct, and modify them even as they pass his or her lips.

Unfortunately, theory bits have the ability to stunt further analysis because they can sound so correct. . . . Multivariate thinking stops in favor of a juicy single variable, a quick and sensible explanation. . . . Multivariate thinking can continue these bits to fuller explanations. This is the great benefit of trusting a theory that fits, works, and is relevant as it is continually modified. . . . But a responsible grounded theorist always should finish his or her bit with a statement to the effect that “Of
course, these situations are very complex or multivariate, and without more data, I cannot tell what is really going on.” (Glaser 2000:7-8)

As noted throughout this chapter in commenting on how to learn qualitative analysis, it is crucial to study examples. Bunch (2001) has published a grounded theory study about people living with HIV/AIDS. Glaser (1993) and Strauss and Corbin (1997) have collected together in edited volumes a range of grounded theory exemplars that include several studies of health (life after heart attacks, emphysema, chronic renal failure, chronically ill men, tuberculosis, Alzheimer’s disease), organizational headhunting, abusive relationships, women alone in public places, selfhood in women, prison time, and characteristics of contemporary Japanese society. The journal Grounded Theory Review began publication in 2000. (See Exhibit 3.7 in Chapter 3 for the grounded theory Web site.)

Qualitative Comparative Analysis

Another approach that focuses on making comparisons to generate explanations is “qualitative comparative analysis” (QCA) presented by Charles Ragin (1987, 2000). Ragin has taken on the problem of making systematic case comparisons across a number of cases. He uses Boolean algebra to facilitate comparisons of large case units such as nation-states and historical periods, or macro-social phenomena such as social movements. His comparative method involves representing each case as a combination of causal and outcome conditions. These combinations can be compared with each other and then logically simplified through a bottom-up process of paired comparison. Ragin’s aim in developing this configurational approach to cross-case pattern analysis was to retain the strength of holism embedded in context-rich individual cases while making possible systematic comparisons of relatively large numbers of cases, for example, 15 to 25, or more. Ragin (2000) draws on fuzzy set theory and calls the result “diversity-oriented research” because it systematically codes and takes into account case variations and uniquenesses as well as commonalities, thereby elucidating both similarities and differences. The analysis involves constructing a “truth table” in which the analyst codes each case for the presence or absence of each attribute of interest (Fielding and Lee 1998:158-59). The information in the truth table displays the different combinations of conditions that produce a specific outcome. To deal with the large number of comparisons needed, QCA is done using a software program (Drass and Ragin 1992; see Exhibit 8.2).

Analysts conducting diversity-oriented research are admonished to assume maximum causal complexity by considering the possibility that no single causal condition may be either necessary or sufficient to explain the outcome of interest. Different combinations of causal conditions might produce the observed result, though singular causes can also be considered, examined, and tested. Despite reducing large amounts of data to broad patterns represented in matrices or some other form of shorthand, Ragin (1987) stresses repeatedly that these representations must ultimately be evaluated by the extent to which they enhance understanding of specific cases. A cause-consequence comparative matrix, then, can be thought of as a map providing guidance through the terrain of multiple cases.

QCA seeks to recover the complexity of particular situations by recognizing the conjunctural and context-specific nature of causation. Unlike much qualitative method forces researchers to consider variables in a systematic way. The likelihood that “inappropriate” variables can be dropped from the analysis is greatly reduced beyond the historical and textual contexts originally envisaged by Ragin (1987) and Lee 1998:160, 161.

In cross-cultural research of determining comparable units, Ragin has created controversy that definitions of “family” and “kinship” can one really do systematic comparisons? Are extended families in societies and nuclear families in industrial societies so different that, beyond the differences, they cease to have units for generating an explanation problem for ethnologists and develop adequate cultural units for cross-cultural research? (De Munck 2000:279). Ragin turn to now, also dependent on comparative a comparative unitary basis of analysis. Analytic Induction

Analytic induction another comparative approach to case analysis in an effort to generate analytic generalizations. Ragin’s QCA formalized the logic of analytic induction (Ragin 1987/2000:787), but it is not considered as a method of “evidentiary" induction. The classic The Research Act model of induction is based on dead indicion where the aim is to generate generalizations from empirical evidence. In contrast, the QCA approach begins with a set of cases and seeks to recover the complexity of particular situations by recognizing the conjunctural and context-specific nature of causation. Unlike much qualitative method forces researchers to consider variables in a systematic way. The likelihood that “inappropriate” variables can be dropped from the analysis is greatly reduced beyond the historical and textual contexts originally envisaged by Ragin (1987) and Lee 1998:160, 161.

In cross-cultural research of determining comparable units, Ragin has created controversy that definitions of “family” and “kinship” can one really do systematic comparisons? Are extended families in societies and nuclear families in industrial societies so different that, beyond the differences, they cease to have units for generating an explanation problem for ethnologists and develop adequate cultural units for cross-cultural research? (De Munck 2000:279). Ragin turn to now, also dependent on comparative a comparative unitary basis of analysis. Analytic Induction

Analytic induction another comparative approach to case analysis in an effort to generate analytic generalizations. Ragin’s QCA formalized the logic of analytic induction (Ragin 1987/2000:787), but it is not considered as a method of “evidentiary" induction. The classic The Research Act model of induction is based on dead indicion where the aim is to generate generalizations from empirical evidence. In contrast, the QCA approach begins with a set of cases and seeks to recover the complexity of particular situations by recognizing the conjunctural and context-specific nature of causation. Unlike much qualitative method forces researchers to consider variables in a systematic way. The likelihood that “inappropriate” variables can be dropped from the analysis is greatly reduced beyond the historical and textual contexts originally envisaged by Ragin (1987) and Lee 1998:160, 161.
In cross-cultural research, the challenge of determining comparable units of analysis has created controversy. For example, when definitions of "family" vary dramatically, can one really do systematic comparisons? Are extended families in nonliterate societies and nuclear families in modern societies so different that, beyond the obvious surface differences, they cease to be comparable units for generating theory? "The main problem for ethnologists has been to define and develop adequate and equivalent cultural units for cross-cultural comparison" (De Munck 2000:279).

Analytic Induction

Analytic induction also involves cross-case analysis in an effort to seek explanations. Ragin's QCA formalized and moderated the logic of analytic induction (Ryan and Bernard 2000:787), but it was first articulated as a method of "exhaustive examination of cases in order to prove universal, causal generalizations" (Peter Manning quoted in Vidich and Lyman 2000:57). Norman Denzin, in his sociological methods classic The Research Act (1978b), identified analytic induction based on comparisons of carefully done case studies as one of three primary strategies available for dealing with and sorting out rival explanatory in generating theory, the other two are experiment-based inferences and multivariate analysis. Analytic induction as a comparative case method was to be the critical foundation of a revitalized qualitative sociology. The claim to universality of the causal generalizations is...
variability to the sample. In this way, the originators of the method sought to examine enough cases to assure the development of universal hypotheses.

Originally developed to produce universal and causal hypotheses, contemporary researchers have de-emphasized universality and causality and have emphasized instead the development of descriptive hypotheses that identify patterns of behaviors, interactions and perceptions. Bogdan and Biklen (1992) have called this approach modified analytic induction. (Gilgun 1995:268-69)

Jane Gilgun used modified analytic induction in a study of incest perpetrators to test hypotheses derived from the literature on care and justice and to modify them to fit in-depth subjective accounts of incest perpetrators. She used the literature-derived concepts to sensitize her throughout the research while remaining open to discovering concepts and hypotheses not accounted for in the original formulations. And she did have new insights:

Most striking about the perpetrators' accounts was that almost all of them defined incest as love and care. The types of love they expressed ranged from sexual and romantic to care and concern for the welfare of the children. These were unanticipated findings. I did not hypothesize that perpetrators would view incest as caring and as romantic love. Rather, I had assumed that incest represented lack of care and, implicitly, an inability to love. It did not occur to me that perpetrators would equate incest and romance, or even incest and feelings of sexualized caring. From previous research, I did assume that incest perpetrators would experience profound sexual gratification through incest. Ironically, their professed love of whatever type was contradicted by many other aspects of their accounts, such as continuing the incest when children wanted to stop, withholding permission to do ordinary things until the children submitted sexually, and letting others think the children were lying when the incest was disclosed. These perpetrators, therefore, did not view incest as harmful to victims, did not reflect on how they used their power and authority to coerce children to cooperate, and even interpreted their behavior in many cases as forms of care and romantic love. (Gilgun 1995:270)

Analytic induction reminds us that qualitative inquiry can do more than discover emergent concepts and generate new theory. A mainstay of science has always been examining and reexamining and reexamining yet again those propositions that have become the dominant belief or explanatory paradigm within a discipline or group of practitioners. Modified analytic induction provides a name and guidance for undertaking such qualitative inquiry and analysis.

5 Special Analytical Issues and Frameworks

Reflexivity and Voice

In Chapter 2, when presenting the major strategic themes of qualitative inquiry, I included as one of the 12 primary themes that of "voice, perspective, and reflexivity."

The qualitative analyst owns and is reflective about her or his own voice and perspective; a credible voice conveys authenticity and trustworthiness; complete objectivity being impossible and pure subjectivity undermining credibility, the researcher's focus becomes balance—understanding and depicting the world authentically in all its complexity while being self-analytical flexible in conscious

Analysis and representations come to analysis and reporting out all of qualitative inquiry and voice in the process of engaging in findings. Triangulate involves three sets of questions: (Chapter 2):

1. Self-reflexivity. What do I know what I know has shaped my perspective and my study of the data I have collected? How do I know what I know? Why? How do I know? (See Chapter 11. autoethnography.) What have I found? These questions lead to also be a part of our "personal epistemology" of how we understand knowledge construction of knowledge (Yin 1998:25).

2. Reflexivity about those studied. How do they perceive what I know as shapes and has shaped my study? How do they perceive me? Why? How do I know?

3. Reflexivity about audiences who receive my findings and what I give them? What have they brought to the findings? How do I know? How do I know? Why do I know?

Self-awareness, even self-analysis, has become a part of qualitative inquiry. As the