The purpose of an exploratory investigation is to move toward a clearer understanding of how one's problem is to be posed, to learn what are the appropriate data, to develop ideas of what are significant lines of relation and to evolve one's conceptual tools in the light of what one is learning about the area of life. (Blumer, 1969, p. 40)

Table 5.1  Key Terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Analysis</td>
<td>The act of taking data, thinking about it, and denoting concepts to stand for the analyst's interpretation of the meaning intended by the participant</td>
</tr>
<tr>
<td>Analytic strategies</td>
<td>Thinking techniques used by analysis to help with their interpretations</td>
</tr>
<tr>
<td>Asking of questions</td>
<td>An analytic device used to open up the line of inquiry and direct theoretical sampling</td>
</tr>
<tr>
<td>Coding</td>
<td>Denoting concepts to stand for data</td>
</tr>
<tr>
<td>Constant comparisons</td>
<td>The analytic process of comparing different pieces of data against each other for similarities and differences</td>
</tr>
<tr>
<td>In vivo code</td>
<td>Concepts using the actual words of research participants</td>
</tr>
<tr>
<td>Theoretical comparisons</td>
<td>An analytic tool used to stimulate thinking about properties and dimensions of categories</td>
</tr>
<tr>
<td>Theoretical sampling</td>
<td>Sampling based on properties and dimensions of concepts</td>
</tr>
</tbody>
</table>
The purpose of this chapter is to provide readers with a selection of analytic strategies that can be used by researchers to help them with their analyses. Over the years, Anselm Strauss developed a repertoire of analytic strategies that he used. But Anselm Strauss is not alone. Every one of us uses strategies in our daily lives to analyze what is going on around us. For example, when a woman goes into a store to buy a dress or pants, she usually doesn't buy the first dress or pair of pants the salesperson shows her. She tries on several items, comparing them for fit and price. She asks herself or others who might be with her how a garment looks on her and if the color and style flatter her. Notice that the woman doing the buying is asking questions and making comparisons even though she may not be consciously aware of doing so. It just comes naturally. Asking questions helps persons to understand things, and making comparisons between objects helps persons to differentiate between objects based on their properties—size, style, color, and fit—then to choose the one that meets those criteria.

Analysis requires a similar thinking process. During analysis, researchers are moving rapidly between the abstract and the concrete. They are constantly asking questions and making comparisons. While managing the details of data, they are simultaneously looking for relationships and trying to identify patterns. Beginning analysts are not used to thinking in such deliberate ways about data. Anselm Strauss used to say that his classes were less about teaching a methodology and more about teaching students how to think in logical and systematic ways. This is where analytic strategies come in. They are heuristic devices to help analysts do the deliberate type of thinking required to carry out in-depth analysis.

**Points to Keep in Mind**

When reading this chapter, students are advised to keep the following points in mind:

- Getting into the data
- Purposes of analytic strategies
- Types of analytic strategies

**Getting Into the Data**

Every analyst develops his or her ways of doing analysis. What is important is remaining flexible and responsive to the data, research goal, and amount of time a researcher has to devote to the analysis. We can't speak for all analysts. All we can do is explain how we approach data and how we read it. Before beginning to code, we read the entire interview, field note, or document as well as view the video, resisting the urge to do any analysis at this time. The idea behind this first reading is to enter vicariously into the life of participants, feel what they are experiencing, and listen to what they are saying through their words or actions.

Once we've read and digested the entire document, we begin initial coding. (See Chapters 11 and 12 for examples of beginning coding and analysis.)
1. We look for natural breaks in the manuscript—a section or paragraph—and use these as cutting-off points. Usually these breaks denote a change in topic—but not always. An analyst doesn’t want to work with too large a section of data or it will become cumbersome and maybe even overwhelming.

2. At this point, we can begin coding line by line, using a truly inductive approach.

3. Or we can step back and look at the piece of data that we’ve chosen to analyze and reflect upon what we think is the main idea being expressed in the section. Since the process of open coding is exploratory and leading to concept identification, we ask questions of the data, think about a piece of datum for a while, and apply many of the strategies explained next before coming up with a concept. This concept is tentative to be checked out against other data as we work more with the section of data or match it against data in subsequent interviews. But at least we have a sense of direction, something to launch us into the analysis.

4. Then we start going through a section doing a more detailed line-by-line analysis to verify initial interpretations, and if satisfied, we start coding around that initial concept, looking for explanations, the problems persons are dealing with—what is that people say and do? To aid with this detailed analysis, we make constant comparisons and ask questions such as the following: What is being said or done? Who is doing it? Why? We make use of the analytic strategies listed below in the next section as needed. The answers to our questions and results of comparisons validate original concepts and enable us to start developing concepts in terms of their properties and dimensions.

5. The first concepts we come up with will probably be lower-level concepts or properties and dimensions of the initial concepts. It is not always the case that initial concepts are lower-level concepts. Sometimes initial concepts turn out to be categories. However, a researcher might not know this until later in the research.

6. Sometimes the meaning of data is not very clear, and we find it difficult to put a conceptual name on it. That’s okay because all early analysis is exploratory, and conceptual names are tentative. Concepts can be named and renamed throughout the analysis and often do as sensitivities to meanings become clearer as the research process proceeds. Flexibility of design and the ability to make change is one of the strengths of the grounded theory method. A researcher is not stuck with concepts (or variables, as they are termed in quantitative research). As new interpretations are made, names of concepts, how they are thought about, and how they are related to each other can be altered to create a better fit with the data. That is why the method is called grounded theory because the researcher is constantly evaluating interpretations against data.

7. If a main idea or concept is repeated in subsequent data or in the next interview, we have some validation of the original concept. Then as we obtain more data, we continue developing a concept, adding to it more properties and dimensions from the new data.

8. If we become stuck while doing analysis, we again turn to analytic strategies such as turning a situation upside down, using theoretical comparisons, asking what if…, and looking at the different possible meanings of a word.

9. We always record our analysis in memos.
Analytic Strategies

Meaning is not inherent in words. Words take on meaning when they are given so by users (participants in the case of research) and readers. Analysis involves working with data. Analysis is the act of taking data, thinking about it, and denoting concepts to stand for the analyst's interpretation of the meaning intended by the participant.

A researcher can think of analysis as “mining” the data, digging beneath the surface to discover the hidden treasures contained within. Here is how Miles and Huberman (1994) referred to coding and its relationship to analysis: “To review a set of field notes and to dissect them meaningfully while keeping the relations between the parts intact is the stuff of analysis” (p. 59).

Analysts make use of analytic strategies when coding. Each analyst has his or her own repertoire of analytic strategies. Howard Becker (1998) referred to the strategies he used when analyzing data as “Tricks of the Trade.” The naturalist Charles Darwin, according to Blumer in Symbolic Interactionism (1969), also had his strategies for analyzing data:

Darwin, who is acknowledged as one of the world's greatest naturalistic observers on record, has noted the ease with which observation becomes and remains imprisoned by images. He recommends two ways of helping to break such captivity. One is to ask oneself all kinds of questions about what he is studying, even seemingly ludicrous questions. The posing of such questions helps to sensitize the observer to different and new perspectives. The other recommended procedure is to record all observations that challenge one's working conceptions as well as any observation that is odd and interesting even though its relevance is not immediately clear. (pp. 41-42)

This section of the chapter will explore the following:

- Purposes of analytic strategies
- Analysts should develop his or her own repertoire of strategies.
- The use of strategies varies with the stage of the research.

### Purposes of Analytic Strategies

Analytic strategies help analysts to do the following:

- Distance themselves from the technical literature and personal experience that might block the ability to arrive at new interpretations of data
- Avoid standard ways of thinking about phenomena
- Stimulate the inductive process
- Not take anything for granted
- Allow for clarification or debunking of assumptions of researchers as well as those of participants
- Listen to what people are saying and doing
- Avoid rushing past “diamonds in the rough” when examining data
- Force the asking of questions that can break through conventional thinking
- Allow fruitful labeling of concepts and provisional identification of categories
- Identity properties and dimensions of categories
Analysts Should Develop Their Own Repertoire of Strategies

There is nothing magical about our analytic strategies. They are reflective of how many people think. We use them in our own ways and for our own purposes and in different combinations. Analysts are encouraged to develop their own repertoire of strategies. The number and type of strategies researchers will use will vary with the type of qualitative research, with training, experience, and discipline. Miles and Huberman (1994) began with a list of codes (concepts) derived from the literature; next, they revised the concepts by comparing the original concepts against actual data, revising and discarding as indicated. Glaser (1978), in *Theoretical Sensitivity*, provided a list of 18 coding families, the purpose of which was to sensitize researchers to possibilities in the data and to bring analysis up to a theoretical level. Schatzman (1991) developed an analytic process that he referred to as “dimensional analysis.” He stated that research findings tell a story and that researchers need a perspective to select items from the data for the story, to create their relative salience, and to sequence them. Schatzman (1991) offered the following matrix (similar to Strauss’s [1987] notion of coding) as a means of framing the story in terms of its explanatory logic. His matrix looks something like this:

**The Matrix for Explanatory Paradigm**

(from) Perspective

(attributes) Dimensions—Properties

(in) Context (under) Conditions

Action/Process (with) Consequence

Schatzman worked closely with Strauss; therefore, his emphasis on dimensions and their importance to analysis fits very nicely with our own approach to analysis. Other researchers use different types of analytic schemes to either organize or arrive at an understanding of the data. For example, Lofland, Snow, Anderson, and Lofland (2006) suggested the use of *focusing* as a prelude to analysis. The purpose of focusing is to do just that: getting the researcher focused in on the research process. Focusing includes strategies such as examining the data for possible topics on which to concentrate, arriving at an understanding of those topics by asking questions of them, and treating them in a manner that will arouse interest. When it comes time to do the actual analysis, Lofland and colleagues (2006) offered the following group of sensemaking strategies: social science framing, normalizing and managing anxiety, coding, memoing, diagramming, and thinking flexibly. Another qualitative researcher, Dey (1993), proposed strategies such as “using checklists,” “transposition” (what if? questions), “making free association,” and “thinking by shifting sequence” (p. 86–88) to get at the essence of data.

Many of the strategies used by Strauss are similar to heuristic devices proposed by Wicker (1985). Among the heuristic devices suggested by Wicker are (a) playing with data by applying metaphors, imagining extremes, making diagrams, and looking at process; (b) considering context by placing problems within larger domains and making comparisons
outside the problem domain; (c) probing assumptions and making opposite assumptions; and (d) scrutinizing key concepts (p. 1094).

The Use of Strategies Varies With the Stage of the Research

There are two basic analytic strategies that are used throughout the research process. These are the making of comparisons and the asking of questions. One might say that making comparisons and asking questions are basic procedures for doing any research, but they are especially important in grounded theory research. In fact, grounded theory is often referred to as the "constant comparative method." However, there are other strategies and variations of these that are used less often but more pointedly depending upon the stage of the research and the analytic problem at hand.

Types of Strategies

Anselm Strauss was a thinking man who brought analysis into his everyday life. In this section of the chapter, we want to share some of the analytic strategies that we've found useful when we analyze data. Hopefully, readers will make them their own and use them consciously and wisely, always keeping in mind that these are optional tools that should be used to help with analysis and not be used to force data. The strategies are presented here:

- Questioning
- Making comparisons
- Thinking about the various meanings of a word
- Using the flip-flop technique
- Making use of life experience
- Waving the red flag
- Looking at language
- Looking at emotions that are expressed
- Looking for words that indicate time
- Thinking in terms of metaphors and similes
- Looking for the negative case
- Using other analytical tools

Questioning

The first analytic strategy is the use of questioning. It is, as Blumer (1969) emphasized and Darwin told us, fundamental to analysis. Every researcher wants to ask good questions—ones that will enhance the discovery of new knowledge. Asking questions enables researchers to do the following:

- Probe
- Develop provisional answers
- Think outside the box
- Become acquainted with the data
- Be useful at every stage of analysis

Asking questions is a strategy useful at every stage of analysis, from the beginning to the final writing. It has many functions. One of these is to help researchers overcome a writing block. In a book by Ann Lamott (1994) titled *Bird by Bird*, the use of questions is suggested as a way of getting a writing project off the ground. Lamott believed that asking questions helps a writer get past that initial block of not knowing where to start. Though Lamott was talking about writing and not data analysis, the two have a lot in common. Both have the potential to create a situation of being blocked and having difficulty getting off the ground.

**Types of Questions Asked Need Not Be Earth Shattering**

The questions asked of data in the beginning of analysis need not be earth shattering or clever. They just have to start analysts thinking consciously about possible meanings of data. Suppose a researcher is studying spousal caregivers and the first paragraph of the first field note says something like this:

*It was a very difficult decision to put my husband in a nursing home, but I couldn't physically or emotionally care for him anymore. I am 85, and it was just getting to be too much. But he died only six months after I put him there. Now I wish I had kept him home.*

At the beginning of a project, analysts need a way to break into the data. One way to do this is to ask exploratory questions. They can ask brainstorming types of questions such as these: What does “getting to be too much” mean? What is this woman trying to tell us about herself, about her spouse, their relationship, and the meaning of nursing home and “placement” in the context of that relationship? What if she had kept him home? Then what? Would the outcome have been different? How does age of the caregiver affect placement? If the wife were younger, would she have been able to continue to care for her husband? How long did she care for him? Did she have help? All of these questions are directed at getting an analyst to think about what it is like for a woman to be 85 and in a long-term marriage and having to place her husband in a nursing home.

**Asking Questions Helps Analysts Take the Role of the Other**

Asking questions and thinking about the range of possible answers helps analysts take the role of the other in order to better understand the problem from a participant's perspective. We are not suggesting that the answers that a researcher might come up with are considered part of the findings. No, the questions are just to get the analyst thinking about what this participant as well as future ones might be telling us. To give another illustration, while interviewing a young woman about teen drug use, the participant says, “Getting drugs is easy for teens. There is an obliging supply network.” The concept the analyst chooses to work with is *obliging supply network*. To get the analyst thinking about this
topic and to obtain a better idea of where the participant is coming from, the analyst might ask questions such as the following: Who is doing the supplying, and how is contact made between participant and supplier? What does the word *obliging* mean to her? Where is this person encountering the obliging supply network—at parties, during school breaks on campus, when students go off campus for lunch, around the campus after school, at local teen hangouts? These questions help an analyst enter the world of the participant and to think about how and why it is so easy for her and other teens to access drugs.

**Analysts Must Use Their Common Sense**

We are not saying that analysts must ask an unlimited number of questions about every piece of datum on a page. Analyzing data in such detail is not practical. It would take too long to completely analyze one set of field notes. Being an analyst means using common sense and making the right choices about what bits of data to ask questions about and for how long to do so. There is no right or wrong about analysis. Nor are there rules or procedures that must be followed at all times and circumstances. Analysis is intuitive and requires trusting the self to make the right decisions.

**Asking Questions Leads to More Questions and Answers**

Asking questions of data can occur at any time and place. A researcher can think about data while driving or getting ready for bed. The value of questioning is that once a researcher starts asking questions about data, more questions come to mind, enabling analysts to probe deeper into the data and to collect more relevant data. What becomes obvious upon asking questions is how little analysts know about a topic—even those they might be familiar with—and how more information is needed to fully develop a concept. When analysts probe, concepts become something more than just labels for raw data. They take on meaning.

**Types of Questions**

In addition to the questions of who, what, when, where, how, and with what consequences, there are other types of questions that are useful when doing analysis. Next, we have listed some of the types of questions that can be asked of data:

1. There are *sensitizing questions.* These tune the researcher in to possible meaning of data. Questions of this type might look something like this: What is going on here—that is, what are the issues, problems, concerns? Who are the actors involved? How do they define the situation? Or what is its meaning to them? What are the various actors doing? Are their definitions and meanings the same or different? When, how, and with what consequences are they acting? How are the actions the same or different for various actors and in other situations?

2. There are *theoretical questions.* These questions help a researcher to see process and variation and to make connections between concepts. Theoretical questions might look as
follows: What is the relationship of one concept to another—that is, how do they compare and relate at the property and dimensional level? (See the next section on the making of theoretical comparisons.) What would happen if? How do events and actions change over time? What are the larger structural issues here, and how do these events play into or affect what I am seeing or hearing?

3. There are practical questions. They are the questions that provide direction for theoretical sampling and that help with development of the structure of theory (if theory development is the research goal). These questions include, among many others, the following: Which concepts are well developed, and which are not? Where, when, and how do I go next to gather the data for my evolving theory? What kinds of permission do I need? How long will it take? Is my developing theory logical, and if not, where are the breaks in logic? Have I reached the saturation point?

4. There are the guiding questions. These are the questions that guide our interviews, observations, document gathering, and analyses of these.

The questions we ask over the course of a research project will change over time. Questions are based on the evolving analysis and are specific to the particular research. Usually at the beginning of the research, questions are open ended then tend to become more focused and refined as the research moves along. A question at the beginning of a series of interviews might look like this: Have you ever taken drugs, and if so, what was the experience like for you? In later interviews, the same general question will still be relevant; however, the researcher will want to ask questions that give further information about specific concepts, their properties, and dimensions.

Making Comparisons

Doing comparative analysis is another one of the staple features of social science research, and it is for us also. Usually, it is built into a project’s design, whether explicitly or implicitly. For instance, when sociologists compare gender behavior with respect to sexual activity, criminologists compare the rates of homicide between ethnic groups, or anthropologists comment on the differences between rituals or other cultural behaviors, they are making comparisons. Such comparative studies are often very valuable. We consider making comparisons invaluable to analysis. We offer two different types of comparisons: constant comparisons and theoretical comparisons. Constant comparisons are standard and used throughout analysis. Theoretical comparisons are used whenever a researcher is overwhelmed by details and needs to gain some distance on the research. Detailed explanations of each are given next.

Constant Comparisons

Making constant comparisons refers to the act of taking one piece of datum and examining it against another piece of datum both within and between documents (Glaser &
Strauss, 1967) in order to determine if the two data are conceptually the same or different. Data that appear to be conceptually similar are grouped together under a conceptual label. This type of comparison is essential to all analyses because comparisons allow researchers to reduce data to concepts, to develop concepts in terms of their properties and dimensions, and to differentiate one concept from another. Let’s return to our study of spouse caregivers for an example. In the next paragraph, our 85-year-old female caregiver goes on to say the following:

Since my husband’s death, my life has seemed so empty. You know we were married for 65 years. That’s a long time to be with somebody. Even though he was ill and in the nursing home, at least I knew he was there. Now I’m alone. I know it was time for him to die, but I don’t know if I’ll ever get over the loneliness.

In comparing this passage with the earlier passage by the same elderly woman, we can see that each section of the interview is addressing a different phenomenon. In the first quotation, the woman is dealing with the issue of placement and her feelings about this. In the second, she is not only mourning her husband’s death but also dealing with the loss of companionship that comes from having to live alone after 65 years of marriage. Placement and loss, though related to each other, have to do with different aspects of something larger, a phenomenon not yet identified by the analyst. The nature of the relationship between these concepts will become clearer with further analysis. In subsequent interviews, incidents that are coded as placement will be compared for similarities and differences with other incidents from previous interviews labeled as placement. The purpose of within-code comparison is to uncover the many different properties and dimensions of a concept. Each incident coded as placement has the potential to bring out different aspects of the same phenomenon.

**Summary Statement**

To summarize briefly, people do not invent the world anew each day. Rather, they draw upon what they know to try to understand what they do not know. In this way, they discover what is similar and different about each object and thus define the object in question. For example, take a bed and a sofa. We know that a bed can be used as a sofa and vice versa, but at the same time each object has its own characteristics and functions that make each unique. Similarities and uniqueness or differences are very important in theory building because it enables researchers to differentiate concepts by their differences but also in the end to integrate them together through a common thread.

**Theoretical Comparisons: Devices to Stimulate Thinking**

Theoretical comparisons are analytic devices—the purpose of which is to stimulate thinking about the properties and dimensions of concepts. Persons come to know things through their properties and dimensions. An orange is an orange because it looks and tastes
differently than a lemon, though each is classified as a citrus fruit. If the properties of a concept are evident within the data, there is no need to make theoretical comparisons. Theoretical comparisons are useful when we (a) are confused or stuck about the meaning of data, (b) don't know what might be properties or dimensions, and (c) want to think about data in different ways. The results of theoretical comparisons are not made part of the findings. Rather, their purpose is to sensitize researchers to what to look for in data or to suggest ideas for theoretical sampling.

**Mechanics of Making Theoretical Comparisons**

The mechanics of making theoretical comparisons are quite simple. A researcher takes a concept derived from data. That same concept is used to examine a situation from life or the literature that might be substantively different but to which the same concept might apply. Again, the findings from the results of this comparison are not used as part of the data. An analyst can make this type of comparison because he or she is working with a concept and not the case presented in data. For example, a researcher interviewing a nurse obtained the following data: “When working alone at night, I prefer to work with another experienced nurse. When I work with an inexperienced nurse, I end up carrying most of the workload.”

To gain some understanding of what the nurse meant by *inexperienced*, the analyst can make a theoretical comparison using an example from another situation where being inexperienced might make a difference such as driving a car or building a house. In making theoretical comparisons, analysts are looking for the properties and dimensions of being inexperienced that highlight what the experienced nurse is trying to say in the data. For instance, an inexperienced driver or contractor might have the properties of being overly cautious, apprehensive, frequently seeking direction, afraid to deviate from the pattern, prone to making errors, unsure or him- or herself, afraid to act in a crisis, and so on. Now, with some idea of what it might mean to be inexperienced, the analyst can go back to the data to see if any of these properties are present but may have been overlooked at first because he or she didn’t know what to look for. Or the researcher can collect data (theoretically sample) from inexperienced nurses to see if any of the same or additional properties come out in those interviews.

**Close-In and Far-Out Comparisons**

Sometimes when making theoretical comparisons, we use what we call *close-in comparisons*, or situations that are similar in type. Other times we use what we call *far-out comparisons*, or situations that on the surface appear to be very different but when examined at a conceptual level have more in common than would appear at first. In making far-out comparisons, we are trying to break out of stereotyping by following the example of the sociologist E. C. Hughes, who enjoyed making striking and sometimes shocking comparisons, such as between the work of psychiatrists and prostitutes. Both belong to professions, have clients, get paid for their work, and as he stated, “Take care not to become too personally involved with clients who come to them with their intimate problems” (Hughes, 1971, p. 316).
Forces Analysts to Think Abstractly

The making of theoretical comparisons forces researchers to move from describing the specifics of a case and to thinking more abstractly. A difficulty of beginning qualitative analysts is that they become too focused on the details or the specifics of each case and fail to stand back to think more abstractly of what is common between the cases, something necessary when constructing theory.

To use an example, when a person goes out to buy a racehorse, the issue is not whether or not a particular horse is good looking. Rather, what is important are the properties of the horse, how fast it runs, how old it is, what its state of health is, and how it compares with other horses along these same properties. Of course, there is a lot more to know about a racehorse before one invests money to buy one, but thinking in terms of specific properties and then checking a horse in terms of these properties helps an investor to make a good choice.

Summary of the Use of Comparisons

Comparisons help analysts to do the following:

- Grasp the meaning of events that might otherwise seem obscure
- Sensitize researchers to possible properties and dimensions that are in the data but remain obscure due to a lack of sensitivity on the part of the researcher
- Suggest further interview questions or observations based on evolving theoretical analysis
- Move more quickly from the level of description to one of abstraction
- Counter the tendency to focus on a single case by immediately bringing analysis up to a more abstract level
- Examine their assumptions, biases, and perspectives as well as those of participants
- Reexamine findings, the reanalysis often resulting in the qualification or altering of the initial interpretations
- Make it more likely that analysts will discover variation as well as general patterns
- Ensure the likelihood of a more fluid and creative stance toward data analysis
- Facilitate the linking and densification of categories

Thinking About the Various Meanings of a Word

During the course of an interview, researchers often think that they know what respondents mean when they make a statement. However, when they get home and take a closer look at the interview, they discover that perhaps they didn’t really understand what the participant was saying. There are various levels of meaning and various meanings that can be contained in a word or statement—especially if the meaning by the speaker is vague. A researcher should not jump to assigning a meaning without first exploring carefully all possibilities.
When we talk about exploring the meaning of a word or a phrase, we do not mean that analysts should use this strategy on every word in a document. The researcher has to be selective about the choice of which words to spend time exploring and explore only those that are unclear. Sometimes meaning is obvious from the context. Sometimes it is not so obvious. Or a researcher may be suspicious that the taken-for-granted interpretation is not the only meaning that could be assigned and that there is something deeper there. When this happens, it is time to do some thinking.

Technically, doing analysis of a word, phrase, or sentence consists of scanning a document—or at least a couple of pages of it—then returning to focus on a word, or phrase, that strikes the analyst as being significant and analytically interesting but unclear in meaning. Then, the analyst begins to list all of the possible meanings that come to mind. With this list, the analyst can turn to the document and look for incidents, or words, that will point to meaning. For instance, take a phrase mentioned by a teen when talking about taking drugs—namely that teens use drugs as a “challenge to the adult stance.” The word challenge can have many different meanings. Since the interviewee did not specify what she meant, figuring out what the participant meant becomes a challenge for the researcher. Challenge could mean confronting the parent with statistics or other information. Challenge could also indicate a way of rebelling, a way of learning something about oneself or about drug use, a way of escaping from parental authority, and a way of defining who one is. All of these are possible interpretations. It is up to the analyst to take the list and search for clues in the data indicating the most likely meaning within the context of the rest of the interview. The researcher might find that none of the possible meanings on the list are supported by data. In that case, the researcher could go back to the participant and ask.

Using the Flip-Flop Technique

Flip-flopping consists of turning a concept inside out or upside down to obtain a different perspective. To use another concept pertaining to teens and drug use, let us look at the word access, which is described by our respondent as being “easy.” In order to better understand what is implied by easy access, we can ask the opposite: What would happen to teen drug use if access were “difficult”—that is, if one had to travel a long distance to obtain drugs, ask around a lot, or pass a certain test before obtaining a drug? Would difficult access make a difference in the amount or type of drug used? To continue with this example, if one thinks about difficult access, one might conclude that there might be fewer places to buy the drugs, that they might be less available in places where teens hang out, and that the drugs might be more expensive. Returning to the concept of easy access, the researcher then stands back and, thinking in conceptual terms, looks for properties such as degree of accessibility, amount of cost, and locations where they can be purchased.

Making Use of Life Experience

We share a common culture with our research participants and often experience events in similar cultural ways. In order to gain insight into a participant’s experience, researchers
can at times draw upon personal experiences that are similar to that described by a participant for comparison purposes. It’s not that researchers’ experiences are identical to that of participants but that certain properties might be found in both situations. For example, if a researcher were studying elderly people and wanted to know how they adapt physical space to meet their functional needs, the researcher might have an elderly parent or aunt who comes to mind and who has also had to cope with the same problem. Since it is impossible to completely block out the parent’s or relative’s experience, why not put that knowledge to good use? It is possible to use the experience of Mom or Aunt Julia not as data per se but to stimulate thinking about various properties and dimensions of spatial use?

As the authors of this book, we can hear our critics saying “bias”—bias at the suggestion of using personal data. We are not suggesting that a researcher impose his or her experiences on the data. Rather, we are suggesting that researchers might want to momentarily escape from their data and put their focus on a situation that will get them to think more conceptually and in terms of properties and dimensions. Experience may even offer a negative case or something new to think about that will make researchers confront their assumptions about specific data.

Waving the Red Flag

Analysts and research participants bring to the investigation their biases, beliefs, and assumptions. It is important that researchers acknowledge this happens and that they remain alert looking for instances when biases, assumptions, or beliefs are intruding into the analysis. Recognizing this intrusion is often difficult because meanings are often taken for granted. Sometimes researchers become so engrossed in their investigations that they don’t even realize that they are no longer questioning data but have come to accept the assumptions or beliefs of their own or those of respondents. A researcher must walk a fine line between getting into the hearts and minds of respondents while at the same time keeping enough distance to be able to think clearly and analytically about what is being said or done—a good reason for the researcher to keep a journal of his or her responses and feelings.

Whenever researchers hear terms such as *always* or *never*, it should raise a red flag in their minds—and so should phrases such as, “it couldn’t possibly be that way” or “everyone knows that this is the way it is.” Remember, as analysts we are thinking in dimensional ranges and words such as *always*, *never*, *everyone*, and *no way* represent only one point along a continuum. We want to also know the *sometimes* and the conditions that are likely to lead to *sometimes* versus *always* or *never*. For example, a student in one of our seminars was studying the use of interpreters in clinics treating Asian women. The student explained that when no female interpreter is available to translate for a female patient, a male interpreter is sometimes called upon. The use of men in these cases is problematic when the female patient has sexual or gynecological problems because these topics are considered too sensitive to be discussed in mixed gender company.

From an analytic standpoint, the concepts of *taboo* and *never* stand out, immediately waving a red flag in our minds. It would be very easy for persons familiar with Asian
cultures to accept this stance and not raise any further questions about the matter. Yet, the concept of taboo brings up some very interesting questions. What happens in life-threatening situations when a woman’s life is immediately at stake? Would the woman or the interpreter let her die because no one is willing to talk about what is happening? Or are there subtle ways of getting around taboos by making inferences, by providing subtle clues, or using nonverbal communication? Would a sensitive clinician who is familiar with this population pick up on what is not being said and follow up on it? Would the woman find an excuse to leave and then come back at another time? To simply accept what we are told and never question or explore issues forecloses on opportunities to develop more encompassing and varied interpretations.

**Analytic Moral**

The analytic moral is not to take situations or sayings for granted. It is important to question everything—especially those situations where we find ourselves or our respondents “going native” or accepting the common viewpoint or perspective. Also, when we hear a term such as *sometimes*, we want to explore the conditions that bring about *sometimes* and determine if there are other situations that also produce *never* or an *always*. We search for and welcome contradictory cases so that we might find examples of how concepts vary when conditions change. And, even if *never* is the situation, we want to know what the conditions are that make this so. We should remember that people are very resourceful. Over the years, they seem to find strategies for managing or getting around many different types of situations. Finding these variations adds depth and gives our concepts greater explanatory power.

**Looking at Language**

People often use language in interesting ways. Examining how respondents use language can tell us a lot about a situation. Take the passage we quoted earlier about the elderly woman who put her husband in a nursing home. The woman says, “It was a very difficult decision to put my husband in a nursing home, but I couldn’t physically or emotionally care for him anymore.” Notice that she is using the first-person language of *I* and not *we*, which tells us that she views putting him in the nursing home as her decision to make. Did her husband have any input into the decision? Does she have children, and were they involved in the decision? If not, why? Does the fact that she alone made the decision account for how she feels about placement?

Language is also interesting in the sense that persons often conceptualize events for us. Often the terms that they use to express something are so conceptually expressive that we can use them as a code. When someone says, “I guess I’ll just have to come to terms with my disabilities,” they are giving us the concept *coming to terms*. When we think about it, this concept is very descriptive of what happens, and it would be difficult for the analyst to find a better term. When we use the words of respondents as a code, we call this an
in vivo code, indicating that a concept is a term used by the participant. Language is often rich and very descriptive and worth paying attention to.

Looking at Emotions That Are Expressed

Situations or events that are significant enough to be mentioned in an interview may provoke a range of emotions in participants and in the researcher. When doing analysis, it is important to bring emotions and feelings into the analysis. Emotions and feelings cue the analysts as to the meaning of events to persons. Consider the following data taken from an interview conducted by me of a man whose wife had breast cancer:

*When we first discovered the lump in her breast we probably reacted like most people do. At first we thought it was probably nothing, but it should be checked. I think secretly we were both very upset and scared. She did get it checked and then it became apparent that it was probably suspicious and that she would probably have to have surgery. Then we became very frightened because we had both been educated that cancer was a very life-threatening thing. And you have to act quickly to do something about it and that is what we did.* (Excerpt from field notes)

Looking at this couple, an analyst is struck by the fear generated by obtaining a diagnosis of possible cancer. The meaning given to the cancer by this couple was that it was a "life-threatening" event, and this frightened them into acting quickly to do something about it.

Looking for Words That Indicate Time

The use of time-related words often denote a change or a shift in perceptions, in thoughts, events, or interpretations of events. Time words are words such as *when, after, since, before, in case, and if.* Time words help researchers frame events and indicate conditions, and they are important when we are trying to identify context and process. Reexamine the quote from the field notes where the husband is describing events surrounding his wife's surgery for breast cancer. The word *when* makes us take notice. It frames the events that followed and marks entry into the cancer experience. The word *then* that follows several lines later denotes a shift in the experience from it "might be cancer" and we are secretly afraid, to it probably is cancer, we need surgery, and we are "very frightened" because cancer is life threatening.

Thinking in Terms of Metaphors and Similes

We frequently use metaphors in our everyday lives to explain things to others and ourselves. When we call someone "a fox," we are implying that he or she is sly and cunning, perhaps intelligent and purposeful. If we say that someone is "like a turtle," we mean that a person is slow but persistent. Our research participants often use metaphors and similes to describe events and convey emotions. Lakoff & Johnson (1981) wrote a very interesting book describing how persons use metaphors to talk about things. Researchers can use metaphors to help them make a statement or express an idea. For example, a person might describe
undergoing cancer treatment as "going through hell" or "fighting a battle." The use of even a few words can create images in our minds and hint at meaning of the experience.

Looking for the Negative Case

The negative case is a case that does not fit the pattern. It is the exception to the main theme or core concept of the research. Though a researcher might not find a negative case, searching for that case is useful because researchers can use it to offer alternative explanations. Looking for the negative case provides for a fuller exploration of a concept. A negative case adds richness to findings and points out that life is not exact, that there are always exceptions to almost any explanation.

Using Other Analytical Tools

So What?

Another analytic tool is asking so what? A researcher could ask these questions of the couple described earlier: Why is making this discovery significant? So what if there is a lump? What does it mean to this couple now and to their future? Answers to these questions can better help the researcher to understand why the couple felt that they needed to take immediate action.

Structure of the Narrative

Still, another technique involves looking at the structure of the narrative—that is, looking at how it is organized in terms of time or at what point in the life story the narrative starts, how it proceeds, and how it ends. Are there gaps in the story? Is context brought into the narrative? Looking at how participants structure the story gives the analyst some sense of how the participants locate events in their lives and the salience of these events.

What If?

Then, too, analysts can play the "what if? game" with data. What if the couple ignored the lump? How would the experience now and in the future be different? Or what if the lump was discovered on a mammogram or routine physical exam rather than by the couple? Or if the lump was discovered while on vacation or living abroad rather than at home, how might they have reacted? Letting the mind drift and thinking about other scenarios helps the analysts to look at the data with fresh eyes. For example, in the previously given quotation about breast cancer, the respondent implies that the most natural thing in the world for a woman to do when she finds a breast lump is to run to the doctor. But is it? There are women who dismiss a lump as unimportant or are too fearful to follow through. Analysts might ask the following question: What are the background, education, and experiences of this couple that they became suspicious and went to a doctor? Asking questions such as these enable researchers to get at contextual factors explaining why this couple became suspicious when others might not have.
Ethical Considerations

An important part of doing analysis is reflecting back on who we are and how we are shaped and changed by the research. It is important that a researcher take the time to practice these strategies and make them part of his or her way of thinking. Without practice, the use of the strategies becomes forced rather than skillful. The ethics of doing qualitative research demand that a researcher not jump to conclusions about meaning and that every attempt is made to explore all possibilities and then to check these out against data or with participants.

Summary of Key Points

In this chapter, we’ve presented a set of analytic strategies that can be used to help with analysis. The importance of using these strategies can’t be stressed enough. Analysts want to generate findings that have substance and that contribute to knowledge in their professional fields. To generate new knowledge requires sensitivity to the multilayers of meaning that are possible in data. Analytic strategies are heuristic devices that promote interaction between the analyst and the data. They are used to probe the data, stimulate conceptual thinking, increase sensitivity, promote the possibility of alternative interpretations of data, and generate the free flow of ideas. Most important for analysts to keep in mind is that analytic strategies are to be used flexibly, with understanding and with purpose.

In addition, the thoughtful use of analytic strategies fosters awareness of how bias and assumptions influence analysis. Though some analysts claim to be able to bracket their beliefs and perspectives when analyzing data, putting aside professional perspective is not always possible. Perspectives and assumptions are deeply ingrained and their influence often imperceptible. We find it more helpful to acknowledge our biases and consciously use experience as a strategy to help us think differently and more broadly about data. In addition to the use of analytic strategies described here, we suggest that analysts keep a personal journal during the data-gathering and analytic processes. Journal keeping provides a record of the thoughts, actions, and feelings that are aroused during the research.

Insider Insights Powerful Tools for Analyzing Data

My Experiences Teaching and Using Chapter 5 of Corbin and Strauss

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Over the years, it has been my experience that things really come together for the students of my advanced qualitative research course at UCLA when they start applying the analytic
tools from Chapter 5 of the Corbin & Strauss text to do data analysis. In my class, this is after they transcribed and completed initial coding on three or four interviews that they themselves conducted, as part of their pilot study for this course.

By this time in the course, the students are well aware that they need to move from coding to the development of categories/concepts through articulation of properties and dimensions. However, they don’t seem to grasp HOW to do this until we try out a few of the strategies from Chapter 5 together in class. This is when the light bulbs really seem to turn “on” and students start to grasp the fun and exciting aspects of data analysis that they didn’t previously understand. This is highly motivating for students, and I consistently receive great feedback from them about this class experience, in particular.

I have found that the group experience usually works best if I provide each of the students with some samples of my own data so we can do analysis together in class. Students have told me that they feel less pressure when working with someone else’s data, and they feel more freedom to “make mistakes” as well. Typically, I intentionally choose segments of data (quotes) that address some aspect of one particular theme or category that I found to be richly present in my data. After introducing the study aims and giving a brief overview of the demographics of the sample, I would inform the students of the theme of our focus. Then, I would provide the students with paper copies of the data excerpts stapled together in a packet. For example, this year, I decided to pull some quotes from four interviews done with different women approximately three months after they completed an innovative treatment program for depression. I explained to the class that “being ready for treatment” was the theme but that I was not sure if it was a category or subcategory yet, so I wanted us to look at these quotes together to analyze them. All of the pages with data had line numbers on the left-hand side of the page and a wide right-hand margin. This helped us quickly locate any quote that a student might refer to. I did not provide my own codes of the data, but the students were aware that I had already coded the data and that I was very familiar with it. In the packet, I included a brief introduction to each participant whose quotes were included. After this introduction, I gave the students about 20–30 minutes to read the excerpts and mark the data to identify segments that they thought pertained to “readiness” or “being ready.” Then, together as a group, the students shared what they saw in the data related to “being ready.” They identified quotes, and I noted them on the board with line numbers. After asking a few questions of the data as described by Corbin & Strauss in Chapter 4, we started to make comparisons. Our goal was to look for variation and/or patterns across cases. We also discussed what and how we would write in memos about what we were discussing and how we would further explore the issues that came up in a future memo.

Next, I asked the class to identify a word or phrase that caught their attention in the data. This led to many more questions and group discussion, which allowed students to see how differently their classmates used language. They realized that there were varying ideas about the meanings of different words or phrases that were in the data, which was eye opening for them. It showed them that they should not be so sure that they immediately knew what a participant’s quote meant.
After "looking at language," we used the flip-flop technique to examine the concept of "readiness." We discussed the opposite of readiness, which got everyone in the class talking. Students found that while many agreed, some disagreed on how to define the opposite of readiness. This lively discussion drew them back into the data to see how the participants used the term in the context of the interview.

We continued on using the techniques, one by one, always discussing our ideas together as we went along in relation to the data from these four interviews. From "waving the red flag" to "looking for words that indicate time" to zeroing in on a participant's use of metaphors, the students enthusiastically "mined" the data for what they could find. This year, as in years past, students found that this was easier to do than they expected, as long as they understood the analytic tools. Since it was not their own data and we were doing this as a group, the exercise had a spirit of exploration and playfulness for them.

Students have told me that they felt that this experience was a breakthrough because they realized they could loosen up and really "dig around" in the data as they analyzed it and even when they were coding, if appropriate. They felt more willing to "dig in" because the analytic tools showed them HOW to move back and forth in the data. They said that when they were looking for something in particular, such as how emotions were expressed or how words like "always," "never," or "everything" popped up in the data, they felt that they knew what to do when they saw it. They felt confident. Knowing what the tools were and then using them together in a group showed them that they "had permission" to dig below the surface in a new way.

The follow-up assignment to this in-class exercise was for students to go home and use the analytic techniques with their own data, write about it, and turn in a bundle of memos. In reviewing the memos that were turned in, I can see that students favored the strategies of asking questions of the data, making comparisons, looking at language, noting expressed emotions, and using personal experience. In a recent office hour appointment with a visiting scholar from Italy who is auditing my class, I noticed a line of data in a manuscript we were reviewing for publication based on her research. I asked the scholar to look again at a line of data she included in the manuscript, and she immediately said with a huge smile on her face, "Ah! Now I see that this data is waving the red flag!" Indeed, the line of data included the participant's use of the terms "always," "everything," and "every time" in one sentence. Finding this led us to a more productive analysis of that portion of the data. Yesterday, a doctoral student who took my course two years ago but who is currently deep into data analysis of her dissertation called me last week with a desire to review some of the techniques in relation to how she was doing analysis now. After a fruitful and vigorous discussion, we noted how these techniques are useful in all stages of grounded theory analysis: early, middle, and late. Together, these experiences only reinforce to me the importance of making time to do experiential teaching of the analytic strategies of Corbin & Strauss's Chapter 5. The benefits seem to be endless!
Activities for Thinking, Writing, and Discussing as a Group

1. As a class or alone, apply some of the techniques described to analyze passages from the field notes in Appendix A. These field notes are taken from a biographical study exploring the meaning of life-threatening events to persons and how they incorporate these events into their lives. The event in these field notes is chest pain. If you prefer, you may use some of your own or a group member’s field notes. Share the results of your analysis with the group, and explain how you think their use enhanced the analysis. What did you think about that you might not have if you had not used them?

2. Think about other analytic techniques that you as an analyst might add to the list of analytic techniques. Discuss these with your group.

Suggested Readings