DEVELOPING ANALYSIS

Analysis involves a kind of transformative process in which the raw data are turned into "findings" or "results." Reference to this transformative process is made, either directly or indirectly, in most conceptual discussions of qualitative analysis. For example, Harry Wolcott claims that this transformation process involves, "at a rudimentary level," sorting "data bits into broad categories," or, more abstractly, following "systematic procedures... in order to identify essential features and relationships consonant with the descriptive materials (1994, pp. 23-24). Similarly, Robert Emerson says analysis involves "moving beyond more or less descriptive characteristics of those... studied to offer explanations of observed phenomena, or to propose even more elaborate conceptual framings of these matters" (2001, p. 282).

Implyed by these conceptual statements as well as others are four defining features of the process:

1. The results or findings arise through an analysis process that is shewed in the direction of induction rather than deduction. Deductive analysis begins with theoretically derived hypotheses and then proceeds to test (confirm or falsify) them via data that were assembled in accord with the orienting theoretical perspective. Inductive analysis, on the other hand, is data-based in that the analysis is driven by the data themselves. Thus, when empirical or theoretical observations emerge inductively, they are often said to be "grounded" in the sense of emerging from the ground up rather than being called forth by prior theoretical constructs. This "grounded" metaphor should be used cautiously, however. As noted in Chapter 8 (Section 1.B.4), much, and perhaps most, qualitative fieldwork findings of some theoretical or conceptual significance are not so much novel discoveries as they are "extensions" or "refinements" of existing work (see Snow, Morrill, and Anderson 2003). Prior familiarity with other potentially relevant bodies of work, theoretical or empirical, is obviously a necessary condition for developing extensions and refinements, but actually making those connections should be triggered by one's empirical observations.

2. Because of the inductive character of qualitative analysis, it follows that the researchers are the central agents in the analysis process. Whether the research
is conducted by a single researcher or by a team, the primary analytic agents are the researchers themselves. It is not a process that can be farmed out to independent analysts, nor, as we have noted and will note again, to computers and various software programs.

(3) Because of both the inductive and agent-driven character of qualitative analysis, it is a highly interactive process between the researcher and the data. Just as qualitative fieldwork typically entails researcher immersion in a setting, so analysis of the accumulated data requires the researcher to immerse her- or himself in that data.

(4) Given the inductive, agent-driven, and highly interactive character of qualitative analysis, it follows that the process is labor-intensive and time-consuming. "Making it all come together," as Paul Atkinson has put it, is something that "has to be worked at" (quoted in Strauss and Corbin 1990, p. 117). In other words, analysis should be pursued in a persistent and methodical fashion rather than in a haphazard, seat-of-the-pants manner.

Given these characteristic features of qualitative fieldwork analysis and its importance to the production of interesting fieldwork reports, you might think that there would be widespread understanding among fieldworkers as to how it should be done. Such is not the case, however. Rarely will you find fieldworkers elaborating in their reports how they did their analysis or arrived at their conclusions. As Margaret LeCompte and Jean Schensul have observed:

Many ethnographers describe their analysis in somewhat mystical terms, suggesting that the themes and patterns emerge from the data as they read their fieldnotes over and over again, somewhat as hikers emerge from the mist on a foggy beach. Unfortunately, how these themes and patterns emerge, and what causes them to emerge, is left unclear. (1999, pp. 45–46, emphasis in original)

Nor has there been an extensive textual tradition of providing step-by-step procedures for doing analysis. This is not to say, however, that no published instruction has existed—Glaser and Strauss’s The Discovery of Grounded Theory (1967), the first edition of this volume (1971), and Spradley’s Participant Observation (1980) are early “guidebooks.” But even these plus two additional editions of Analyzing Social Settings (1984, 1995) and works by Strauss and Corbin (1990), Miles and Huberman (1994), Wolcott (1994), Coffey and Atkinson (1996), and LeCompte and Schensul (1999) have not managed to squash the widespread presumption that interesting qualitative fieldwork analysis is the result of what Paul Atkinson has cynically dubbed “romantic inspiration” (1990, p. 117).

In what follows, we draw upon this extant textual tradition to propose a number of strategies for “working at” analysis in a reasonably systematic and methodical manner. We do not claim that these strategies are the only ones meritng consideration, that all are used by every analyst, or that any one will work for every analyst every time. But we do believe that their use
can be of significant help in making your research report interesting and well received.

I. Strategy One: Social Science Framing

The matters we described in previous chapters come forward and inform analysis. Most particularly, this “bringing forward” can and should take the form of conceiving your goal as that of providing a social science framing of your data. As detailed in the previous chapter, this general approach seeks to develop an analysis that is empirically compelling, sheds new empirical and/or theoretical light on the topic, and is important (Chapter 8, Section I). Relative to the third of these three—importance—the goal is to formulate generic propositions that sum up and provide order in major portions of your data.

As described in the previous chapter, a generic proposition is an answer to a question (as discussed in Chapter 7) posed about a topic (as described in Chapter 6). And, as we also indicated in the last chapter, there are other ways to phrase the quest for generic propositions, so do not feel you need to think in terms of this phrasing alone. Other phrasings we mentioned before can work as well, such as forming a hypothesis, developing a thesis, formulating a concept, addressing a problem, and providing a general interpretation.

A. Eight Forms of Propositions

To underscore the relevance to analysis of the matters described in the previous part of this guide, we refer you back to the articulation of the eight different propositional forms in Chapter 8 (Section I.A). Chapters 6 and 7 are replete with summaries of examples of all of these eight basic types of propositions. Scanning through those chapters as you are also thinking about your data in propositional terms can help you to discern how you can use one or more of these forms of basic propositions to organize your data.

B. A Third Way to Contrast Propositional with Other Writing

In the previous chapter, we contrasted generic propositional framing or “idea” writing with “subject” writing and with “historically particular” writing (Chapter 8, Sections I.C.2 and 3). There are variations on these two alternative forms of writing, as well as other genres of writing that can be contrasted to the analytic, propositional form. There is no need to review here these various alternative forms of writing with the exception of one: the “ordinary term paper.” We mention it not only because it is the primary mode of written representation among undergraduate students,
but also because it is strikingly different than the propositional framing that we have advocated. The undergraduate term paper is of the review-
summary genre that is typically modeled on encyclopedia or other reference book articles, the sources from which much of the information in these papers is often taken. In contrast, the objective of the fieldwork report—at least from our vantage point—is an analytic one, entailing the development of empirically based propositional answers to varied questions about social life and organization (see Cuba, 1988, and J. Lofland, 1995, for further elaboration). Thus, these two forms of framing and writing have little in common. Accordingly, our advice is straightforward: Put aside notions of ordinary term papers when beginning your data analysis and proceed, instead, to think and write as an analytic, qualitative fieldworker.

C. Number of Propositions in a Single Fieldstudy

There is of course the question of how many propositions one ought to de-
velop in a field project. The weaseling but accurate answer is: It depends. Among other factors, it depends on: (1) how long one is in the field and
how much data one collects, (2) the stage of the project we are talking about, and (3) the number and scale of reports one plans and completes.

Brief projects, especially those done by students, quite reasonably result in but one report that centerpieces only one major proposition, with brief and subsidiary attention given to others. However, given the inductive character of qualitative fieldwork analysis, even quite small-scale projects can generate, in undeveloped form, a great many possible propositions early on in the research process. These numerous propositional possibilities are derived from one’s fieldnotes or interview transcriptions during the course of the coding and memoing operations which we will discuss shortly. In this fashion, the single proposition or small number of propositions that help to shape your analysis result from a process of winnowing out many other possible, central propositions.

Longer-term projects that collect more data and that are projected to re-
sult in several reports or a book tend to develop several (but commonly less than a half dozen) major propositions, and even books typically follow the model of the single report in tending to treat only one major proposition in a single chapter.

II. Strategy Two: Normalizing and Managing Anxiety

As noted in the opening paragraphs of this chapter, formulating potential major propositions from your data is essentially an inductive activity that is contingent on your persistent and methodical interaction with the data. You get from data, topics, and questions, on the one side, to answers or propositions, on the other, through intensive immersion in the data, allowing your data to interact with your disciplinary and substantive intuition.
and sensibilities as these latter are informed by your knowledge of topics and questions. Initially, these topics and questions function as guides rather than determinants of your analysis, as you begin with an open-ended and open-minded desire to understand the social situation or setting on its own terms. Doing so, however, almost guarantees that you are likely to feel some anxiety and perhaps even frustration, for you are ultimately confronted with the challenge of finding some social science significance or order in your materials. This can appear to be a daunting and even impossible task at first blush, not only because of some of the ethical and emotional issues discussed in Chapters 2 (see Section III.E) and 4 (see Section I.C) but also because of what is likely to appear to be a chaotic and rapidly expanding body of materials to comb through and analyze. But fear not! Feelings of anxiety and difficulty in the face of open-ended tasks are commonplace. Moreover, there are a number of considerations and/or strategies that are helpful in managing these quite normal feelings and fears. Let us point out five of these here and deal with others as they arise in the rest of this chapter.

- The first anxiety-management principle is to recognize and accept the fact that analyzing qualitative field data is neither a mechanical nor easy task, and therefore it is likely to generate anxiety. Recognition of this fact should serve to normalize it and provide you with a sense of comfort that you are like most everyone else when faced with the challenge of making sense of data.

- A second way of coping with and managing this naturally occurring anxiety is to get started on analysis early in the data-collection phase of your project. That is, begin thinking analytically and examining your data accordingly shortly after you have entered the field rather than waiting until your fieldnotes are fully developed and completed (see Chapter 5, Section IV.C). As Miles and Huberman have emphasized, data analysis—which they define broadly to include data reduction, data display, and conclusion drawing and verification—"occurs continuously throughout the life of any qualitatively oriented project" (1994, p. 10). Qualitative analysis is not, then, something that you begin in earnest after you leave the field; rather, it should occur coterminaly with your data collection. It will consume more time and attention as your fieldwork project evolves, of course, but it overlaps considerably with data collection. And this temporal overlap should dilute your anxiety because it means that your analytic work will be stretched out over time with the result that you should know a good deal about the character and analytic possibilities contained within your data well before you actually leave the field.

- A third anxiety-management principle is to work just as persistently and methodically at the task of analyzing your data as you did at collecting it, and with an eye toward shaping your analysis in the propositional form outlined above.

- A fourth anxiety-reducing principle to keep in mind is that the sheer accumulation of information ensures that you will, at minimum, be able to say
something, even if that something is not as analytic as you might like and is not known to you at the moment.

- A fifth way of diffusing whatever anxiety you might experience is to get together with other students in your class or seminar or cohort who are similarly engaged in a qualitative fieldwork project. The formation of such a work group, whether constituted formally or informally, is likely to function much like a “support group” in the sense of helping you work through some of the analysis-related problems and issues with which you are confronted, thereby reducing your associated anxieties and increasing your confidence in your project.

Keeping in mind and/or pursuing these five anxiety-management principles should enhance your confidence that you will inductively generate an analytic statement along the lines of a propositional answer to one or more questions regarding one or more topics in the social situation or setting you are studying. Also, the not infrequent sense of satisfaction and exhilaration that comes from working through and over your data in a fashion that yields an analytic advance—whether in the form of discovery, extension, or refinement—should provide further incentive for proceeding with the analytic task in a persistent and methodical manner. Very much like the satisfaction felt in solving any other puzzle, finding one or more propositions in the chaos of “mere data” can be an enormously positive scholarly experience.

III. Strategy Three: Coding

Qualitative field analysis essentially begins with the activities of “coding” and “memoing.” They constitute much of what it means to “work at analysis.” Although coding and memoing are typically conjoint activities, we discuss them separately here for the ease of presentation, and we begin with coding since it is the initial and more basic activity.

The essence of coding is the process of sorting your data into various categories that organize it and render it meaningful from the vantage point of one or more frameworks or sets of ideas. It is the “process of defining what the data are all about” (Charmaz, 2001, p. 340) by “relating (those) data to our ideas about” them (Coffey and Atkinson, 1996, p. 27), whether those ideas emerge from the ground up or are extensions or refinements of existing theoretical frameworks (see also LeCompte and Schensul, 1999, pp. 45–47).

The words for these organizing ideas applied to the items or chunks of data in your fieldnotes or other materials, or to the answers of the questions asked about those strips of data, constitute codes. They are conceptualized variously as the “names or symbols used to stand for a group of similar terms, ideas, or phenomena” that you notice in your data (LeCompte and Schensul, 1999, p. 55); “tags or labels for assigning units of meaning to . . . information compiled” during your study (Miles and Huberman, 1994, p. 56); or, more abstractly, the labels we use to classify items of information as pertinent to a topic, question, answer, or whatever.
Whether conceptualized simply or abstractly, coding essentially occurs via two overlapping sorting and categorizing processes called initial coding and focused coding (Charmaz 2001; Strauss and Corbin 1990). Initial coding, also referred to as "open" coding (Strauss and Corbin, 1990, pp. 61–74), is where the rubber hits the road, so to speak, as you begin to condense and organize your data into categories that make sense in terms of your relevant interests, commitments, literatures, and/or perspectives. Initial coding begins by inspecting your interview transcriptions or field notes line by line and asking of each discrete item and/or chunk of information—be it an event, behavior, or place—such general open-ended questions as the following:

- What is this? What does it represent (Strauss and Corbin 1990, p. 63)?
- What is this an example of (Cuba 1988, p. 35)?
- What is going on? What are people doing? What is the person saying? What do these actions and events take for granted? How do the structure and context serve to support, maintain, impede, or change these actions and statements (Charmaz 2001, p. 142)?

Examples of Initial coding in response to such questions are provided in the left half of Figure 9.1, which is drawn from Kathy Charmaz's study of people with a chronic illness (1991). One of the characteristic features of initial coding is that the codes are generally quite numerous and varied. Here, for example, Charmaz suggests eleven different, albeit overlapping codes, to capture and categorize what's going on in the four sentences.

Focused coding, on the other hand, is "less open-ended and more directed than line-by-line coding and "is considerably more selective and more conceptual" as well (Charmaz, 2001, p. 344). It builds on initial coding in three ways: by usually beginning after the former is well under way and has accumulated; by using a selected number of the expanding or more analytically interesting initial codes to knit together larger chunks of data; and by using these expanding materials as the basis for asking more focused and analytic questions, such as the following:

- Of what topic, unit, or aspect is this an instance?
- What question about a topic does this item of data suggest?
- What sort of an answer to a question about a topic does this item of data suggest (i.e., what proposition is suggested)?

Once you begin focused coding, then, you have already decided that some number of your earlier codes are appropriate for categorizing your data more thoroughly and for further analytic elaboration. And, while in the process of elaborating a selected number of initial codes, you are simultaneously winnowing out less descriptively and analytically useful ones. Furthermore, some of these elaborated codes may begin to assume the status of overarching ideas or propositions that will occupy a prominent place in the analysis. The right half of Figure 9.1 provides examples of two such selected and focused codes—"avoiding disclosure" and "assessing potential losses and risks of disclosure"—in the Charmaz study.
<table>
<thead>
<tr>
<th>Line-by-line coding</th>
<th>Fieldnotes</th>
<th>Focused coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>shifting symptoms, having inconsistent days interpreting images of self given by others avoiding disclosure</td>
<td>If you have lupus, I mean one day it's my liver; one day it's my joints; one day it's my head, and it's like people really think you're a hypochondriac if you keep complaining about different ailments. . . . It's like you don't want to say anything because people are going to start thinking, you know, &quot;God, don't go near her, all she is—is complaining about this.&quot; And I think that's why I never say anything because I feel like everything I have is related one way or another to the lupus but most of the people don't know I have lupus, and even those that do are not going to believe that ten different ailments are the same thing. And I don't want anybody saying, you know, [that] they don't want to come around me because I complain.</td>
<td>avoiding disclosure</td>
</tr>
<tr>
<td>predicting rejection keeping others unaware seeing symptoms as connected having others unaware anticipating disbelief controlling others' views avoiding stigma assessing potential losses and risks of disclosing</td>
<td></td>
<td>assessing potential losses and risks of disclosing</td>
</tr>
</tbody>
</table>

Adapted from Charmaz 2001, pp. 343, 344.
Whatever the scale or size of a field project, the researcher is likely to devise dozens or even hundreds of codes that organize the flow of reality captured in the fieldnotes into categories or domains that are related to one another in terms of one framework or another. And, in doing so, codes also are "efficient data-labeling and data-retrieval devices . . . (that) empower and speed up analysis" (Miles and Huberman, 1994, p. 65). Thus, without some coding scheme, systematic qualitative data analysis is well nigh impossible.

A. Two Physical Methods of Coding

The cognitive act of assigning a code is the first step in disaggregating your data, but the act is not complete until you have performed a second step: physically placing the coded data in the same place as other data that you have coded the same way. There are two major ways in which you can do this: filing and computerized databasing.

1. Filing

Prior to the widespread availability of personal computers beginning in the late 1980s, coding frequently took the specific physical form of filing. The researcher established an expanding set of file folders with code names on the tabs and physically placed either the item of data itself or a note that referenced its location in another file folder. Before photocopying was easily available and cheap, some fieldworkers typed their fieldnotes with carbon paper, wrote the codes in the margins of the copies of the notes, and cut them up with scissors. They then placed the resulting slips of paper in corresponding file folders. After the advent of cheap and easily available photocopying, some fieldworkers simply made as many copies as they had codes on each fieldnote page and filed entire pages. Such physical operations created one or more file drawers of file folders containing coded data.

2. Computer Databasing

As noted in Chapter 5, the growing availability of relevant computer hardware and software has made it possible for researchers to perform these same basic coding and filing operations much more quickly and efficiently than in the past. The logic of coding is the same, but there is the added advantage of instantaneous filing in one or more files, thus eliminating the labor-intensive acts of physically copying, cutting up, and placing by hand items of data in different file folders. Additionally, computer databasing enables you to search through your data and to retrieve, recode, relile, and enumerate coded items and relate them to one another in a much more consistent and rapid fashion than was formerly possible. Because of advantages that computers offer for data input, categorization, and consolidation, we think that all fieldstudy investigators should give serious consideration to exploring the analytic utility for their projects of both the ordinary word-processing programs that contain impressive coding and filing
capabilities (e.g., Word and WordPerfect) and several of the qualitative data analysis programs now available (e.g., ATLAS, Ethnograph, HyperResearch, NUD*IST, Nvivo). Not only are there a good number of such software programs that can be compared in terms of different criteria, but there are now a growing number of descriptions and assessments of these programs as well as of computer-aided analysis more generally. We recommend a number of these for your consultation:


Although we encourage you to explore the relevance of one or more of the available software programs for coding and organizing your data, we caution you again, as we did in Chapter 5 (Section II.C), not to presume that computer databasing and qualitative software programs are shortcuts or magical keys to developing compelling and important analyses. At best, they expedite and expand data organization, storage, and retrieval possibilities, but they cannot do the hard work of data analysis, which requires certain intellectual and creative skills that, to date, only the analyst can bring to the enterprise. All of the above recommended works recognize and emphasize this distinction. As Coffey and Atkinson conclude in their discussion of computer-assisted qualitative data analysis (CAQDAS), “none of the computer programs will perform automatic data analysis. They all depend on researchers defining for themselves what analytic issues are to be explored, what ideas are important, and what modes of representation are most appropriate” (1996, p. 187).

The conclusion suggested by such observations and assessments strikes us as straightforward: be exploratory and definitely use the computer and perhaps one of the software programs to organize and store your data, but do not assume that either will automatically code or analyze those data in an interesting and compelling fashion.

B. Types of Coding Files

Issues of file folder versus computer databasing aside, you are confronted with the decision of developing a number of basic filing categories in which to code and sort your data. Based on our experiences and discussions
with other fieldworkers, we recommend the development and maintenance of three broad sets of generic files: (1) folk or setting-specific files; (2) analytic files; and (3) methodological or fieldwork files.

1. Folk/Setting-Specific Files

Although you want to develop your analysis along the lines of the social science framing mentioned earlier in the chapter and elaborated in the previous chapter, the various situations and behaviors that are the object of your research are complex entities that require considerable time and attention in order to understand them in their own mundane terms. Thus, rather than begin by transforming local or site-specific categories into more abstract, analytic ones, you should initially establish sets of coding files that are faithful to and capture the central elements of the setting in the language and category schemes of those who populate and negotiate the setting on an everyday basis. In other words, initially establish folk or setting-specific files. These files are extremely important because they not only contain the materials for whatever descriptive accounts you eventually develop, but they also constitute the empirical base for demonstrating that “you were there” and directly observed or experienced what you are trying to get a handle on analytically.

Earlier (Chapter 6, Section 1), we noted that all social settings are constituted by one or more actors (individuals, groups, organizations, etc.) engaging in one or more activities or behaviors in a specific place or locale at a particular time. Accordingly, you can begin by unpacking and coding your data in terms of these generic coordinates. More concretely, establish:

- a set of files for the array of actors you encounter, with a separate file for each actor;
- a set of files for the activities and/or events in which they are participating, with a separate file for each; and
- a set of files for the places or spaces in which these actors and their actions are situated.

What about time? Usually you will not need a separate set of files for keeping track of the times in which actors appear, activities or events occur, or they both come together at a particular place, unless temporality is the focus of your analysis, as with Michael Flaherty’s (1999) examination of how passing time is experienced phenomenologically. However, you will want to be methodical about recording the date and time for each file observation—that is, for example, the date and time in which actor X was encountered or observed or when a particular event occurred or activity was observed. Doing so will enable you to examine processual questions and issues more carefully and systematically should that become a topical focus or question as your analysis develops.

As well, you should either indicate in your file the activity in which actor X was engaged and the place/locale of the encounter or cross-file
your observation on actor X by simultaneously placing it in a particular activity or event file and in a file for a specific locale or place. Such cross-filing or multiple coding, along with the above mentioned temporal notation, will enable you to establish the connections between actors, activities, place, and time in an organized and systematic fashion.

Initially, you should develop coding files for every actor you encounter, every major setting-relevant activity and/or event, and the range of places in which the actors have been encountered and the activities/events observed, and cross-file for each as indicated above. This may seem like a rather daunting task, but there is no way of knowing in advance which actors, activities, or places may emerge as most significant, as indicated by the number of entries or slices of data contained in the file or by the file's eventual analytic relevance. To be sure, not all of the actors, activities, or places will prove equally salient descriptively or analytically, but it would be descriptively and analytically premature to presume to know that in advance of coding. For example, in their coding and analysis of the data that eventually culminated in Down on Their Luck, Snow and Anderson (1993) established a set of files titled "local settings," which included separate files on twenty-five different places (e.g., nonprofit street agencies, commercial establishments, parks, city agencies, street corners), which the homeless variously frequented. As the analysis progressed, it became increasingly clear that some settings were much more fundamental than others to the daily lives and routines of homeless, as well as more salient analytically, but the establishment of such patterns was based on the "fattness" of the files resulting from the coding process rather than from some a priori hunch or bias.

Getting and keeping a handle on local life and its organization at this mundane or street level is greatly assisted, then, if you develop, maintain, and review data coded and organized as suggested above. Additionally, the development of these folk or setting-specific files can assist in the rapid location of base, descriptive information otherwise buried in the chronological notes or obscurely labeled in the analytic codes. And these folk or setting-specific coding files are likely to stimulate or refine analytic coding by pointing to patterns not anticipated or fully congruent with existing theoretical/analytic schemes or codes.

2. Analytic Files

In establishing analytic files, you ask of your slices, units, or chunks of field observations questions of the kind elaborated in Chapter 7 and that can be further transformed into the propositional format spelled out in Chapter 8 (Section 1.C.2) and discussed again earlier in this chapter (Section 1.A). Here, rather than asking what kind of folk activity or event is this, or where did it occur, you ask analytic "focusing" questions of the kind indicated at the beginning of this section. There is no one way to ask such questions, of course, as they can range from the general and more abstract to the more concrete and focused.
Examples of more general and abstract analytic questions include:

- What kind of sociological topic, unit, or aspect is this event or activity?
- Is it illustrative of a particular analytic type or kind of process?
- To which of the formal kinds of propositions is it most relevant?

Examples of more concrete and focused questions include:

- Does it say something about the actor's self or identity?
- Is it strategic action and, if so, what kind?
- What was the consequence of this line of action or account for the actor(s)?

Whatever analytic questions are asked, the point is that you are now thinking about and playing with your data in terms of social science framing and therefore various social scientific concepts, processes, and perspectives. Accordingly, the development of these analytic files will depend in large part on the focused coding discussed earlier and your “memoing” practices, which we will discuss shortly.

Just as there is no one form for asking analytic questions, so there is no one set of established guidelines for engaging in analytic coding and establishing and developing analytic files. However, the following guidelines can be discerned in the published projects and methodological reports of many fieldworkers, including our own:

- **Adopt an Emergent and Experimental Posture**: While coding for folk or setting-specific files is a fact-keeping and housekeeping enterprise, analytic coding is more emergent, venturesome, and experimental (although the coder is also prepared to classify items of information in fairly obvious terms). This is especially true in the early stages of a project when the fieldworker is not yet particularly concerned about the eventual viability of a file code or whether it will ultimately make any kind of sense. The aim, instead, is to generate as many separate codes and files as one is prompted or inspired to during the course of inspecting the data. The task of reckoning with these emergent and venturesome analytic impulses comes later, during the period of final analysis.

- **Engage in Regular Coding**: The requirements of interviewing and observation, as well as other facets of life, affect the frequency with which fieldworkers can engage in coding and filing. Whatever the internal, the field wisdom, as noted earlier, is to start coding quite early in the research process and to engage in it as regularly as possible. Miles and Huberman go so far as to assert that you should “always code the previous set of field notes before the next trip to the site. Always—no matter how good the excuses for not doing it” (1994, p. 65). We think this is a bit extreme given the practicalities of life, but the spirit of their directive is well taken.

- **Engage in Extensive and Pervasive Coding**: Since coding is an emergent, open-ended, and time-consuming activity, questions are often asked about how extensively and pervasively it should be conducted. More concretely, how many codes
Developing Analysis

should one generate overall, and how many should one apply to, say, a single page of fieldnotes or interview transcripts? There is no magical or pat answer to such questions, as it all depends on the richness of the data, the regularity of the coding, and the creative capacities and insights of the field coders as they engage and interact with the data. In general, however, you are well-advised to code as extensively and pervasively as possible. In practical terms, this means reading line by line, sentence by sentence. Doing so does not guarantee creative analytic insights, but not doing so does decrease the likelihood of generating such insights and ultimately developing an excellent analysis.

* **Engage in Multiple Coding of Single Items**: Here the process of multiple coding or cross-filing initiated with the establishment of folk files is accelerated in the sense that you should code any given item, unit, or chunk of field data in as many files or code categories as seems appropriate. (This is exemplified in Charmaz’s coding shown in Figure 9.1.)

* **Treat Folk Coding and Analytic Coding as Overlapping Tasks**: Although there is no set pattern among fieldworkers regarding the temporal relationship between folk or setting-specific coding and analytic coding, the recommended relationship is much the same as that applied to previously discussed relationships between data collection and data analysis: approach them as overlapping rather than as mutually exclusive tasks. While folk coding will certainly be dominant in the initial stages of the coding process, creative, analytic flashes and insights may materialize at any moment when inspecting the data. But it is also the case that the further you are into the coding process, the more frequent the development of analytic codes and files. So it is reasonable to expect analytic coding to evolve over time and then expand as the more setting-specific, mundane coding progresses and then begins to decline.

* **Category Saturation and Subdivision**: Instances of some codes occur with such frequency and regularity that one develops a file with an enormous number of included data points or items of information, often far more than seems needed or is manageable. Analysts proceed in one of two directions in this circumstance. On the one hand, you can inspect the instances in the code file more closely for how they vary among themselves in ways that make for more fine-grained analysis. That is, you can elaborate the code itself to identify subdivisions. On the other hand, such close inspection may lead to the conclusion that no further inspection is required or that what might be done is not important enough to do. In these events, you may assess the category as “saturated” and cease coding for it.

3. Methodological/Fieldwork Files

Most of your field data will be coded into the folk and analytic files, but not all of your materials will be of descriptive or conceptual or theoretical analytic relevance. Instead, some of it is likely to bear directly on your fieldwork procedures—that is, on the data-gathering challenges, issues, and feelings discussed in Chapters 2 through 4 in Part I. And this is especially
the case if you attentively recorded your research experiences, impressions, and feelings as suggested in Chapter 5 (Section IV.C.2). It is for the coding, sorting, and analysis of such materials, then, that you will want to establish sets of methodological or fieldwork files. These files can serve a number of important functions. Most obviously, they will greatly assist in writing this part of your report. (For examples, see the specific accounts of fieldwork experience provided at the end of Chapter 4). Additionally, these files are likely to provide you with materials relevant to our discussion of “trueness” in Chapter 8 and thus provide another basis for enhancing the credibility of your final report, as we will discuss further in Chapter 10. And finally, these files may contain materials that provide the basis for reports or papers on aspects of the process of fieldwork itself (see, e.g., Adams 1998; Ellis 1995; Horowitz 1986; Rochford 1994; Salzinger 2004; Schepers-Hughes 2004).

C. Maintaining a Chronological Record

Splitting the materials into folk or setting-specific, analytic, and fieldwork files helps immeasurably in organizing your data and developing an analysis. In fact, we would argue that odds of developing a compelling analysis are miniscule in the absence of the development of such files. But these files can also obscure the temporal evolution of your field data and notes, as well as the context in which they are embedded. When you scrutinize a particular piece of fielded material, for example, the question can arise: What else was happening at the time, or what else was the person saying, that seemed irrelevant then but now seems important? You want, that is, to be able to look back at the more general context, and, to do this easily, you need an intact chronological record of the past. You should therefore keep a full set of your materials in the order in which you originally collected them.

A chronological set of materials is also useful for locating information that is not readily available in one or another of the files. And it is useful simply for reading and reviewing from beginning to end as a stimulus to thinking about larger patterns and larger units of analysis (as outlined in Chapter 6).

IV. Strategy Four: Memoing

In the course of coding, whether initial or focused, it is extremely important to get in the habit of writing down your ideas about your various coding categories and their interconnections, and even about your procedures and fieldwork experiences. These written-out notes about such ideas and experiences are called *memos* (Charmaz 2001; Glaser 1978; Miles and Huberman 1994; Strauss and Corbin 1990). Writing these memos (memoing) constitutes “the intermediate step between coding and the first draft of
your completed analysis" (Charmaz, 2001, p. 347) and is thus fundamental to making sense of your data. As Charmaz has observed, "many qualitative researchers who do not write memos become lost in mountains of data and cannot make sense of them" (2001, p. 347).

Although most discussions of memoing accent its analytic and theoretical utility for the development of "grounded theory" (Charmaz 2001; Glaser and Strauss 1967; Strauss and Corbin 1990), we believe it is equally relevant to theoretical extension and refinement as discussed in Chapter 8 (Section 1.B.4). As suggested above, memoing can also be useful for clarifying basic codes and revisiting and fine-tuning methodological issues and procedures. Miles and Huberman note in this regard that while "memos are primarily conceptual in intent" they can also be useful for thinking about, clarifying, and improving upon "any aspect of the study—personal, methodological, and substantive" (1994, p. 72). This more expansive view of memoing is in accord with Strauss and Corbin (1990), who suggest three kinds of memos: code memos, theoretical memos, and operational or methodological memos.

1. **Code memos** are notes that elaborate and clarify the codes and the assumptions underlying them. The objective of writing them is to make sure that the codes are descriptive and/or conceptually appropriate and as unambiguous and non-repetitive as possible. In many respects, elaborating and clarifying your codes is akin to what quantitative researchers do when they seek to operationalize clearly their dependent and independent or causal variables.

2. **Theoretical memos**, to paraphrase Barney Glaser, are the "theorizing write-ups" of your ideas about your codes and their relationships as they strike you while coding. They exhaust, at the moment in which you write them, your "momentary ideation" based on the data inspected and coded, with perhaps a little conceptual elaboration (1978, pp. 83–84). As you continue to code and analyze your data, however, you may very well write new memos that build on the earlier ones and lead to a clearer and more elaborated conceptual or theoretical understanding of the phenomenon in question. Thus, theoretical memoing is a procedure that not only continues throughout the entire coding process, but may even continue once the coding is completed as you develop your analysis further by revisiting and refining earlier theoretical memos. Although the slices and chunks of fieldnotes that stimulate theoretical memos may be coded into both the folk and analytic files, it is likely that theoretical memos will be generated most frequently in tandem with the focused coding of analytic files.

3. **Operational/procedural memos** consist of the notes you write to yourself and team members, if any, regarding the whole gamut of procedural challenges, issues, and strategies associated with gathering data, as explored in Part 1, including plans to do something about emergent challenges and issues. These memos may take the form of directions to modify one or more procedures, such as securing a wider range
of informants; leads to follow up on, such as exploring the prospect of accessing alternative data points or sources; or reflections on how your fieldwork procedures and experiences inform some general methodological issue or practice, such as gaining access, styles of interviewing, or disengagement. Just as theoretical memos are most likely to spring from the intersection of focused coding and analytic files, so the methodological files are likely to be the primary source of inspiration for operational/procedural memos.

Whatever the basic genre of memo being written, you need not fret about its length. What Glaser had to say about the length of theoretical memos applies to all fieldwork memos: they "can be a sentence, a paragraph, or a few pages" so long as they "exhaust" your thinking about the issue or topic at the moment (1978, p. 84). However, you do need to be relatively compulsive about memo-writing and realize that it will become a larger feature of your work as your analysis develops, even as the range of topics with which they deal becomes narrower (i.e., codes become more focused). The reason for this recommended compulsiveness is because of the salience of memoing to developing a compelling analysis. As Miles and Huberman note in this regard, memos "are one of the most useful and powerful sense-making tools at hand." (1994, p. 72)

We have just provided an overview of "coding" and "memoing," and suggested that they are critical and ongoing steps in the process of developing analysis. However, we want to reintroduce two caveats noted earlier about these two strategies along with the other ones discussed in the preceding pages. The first is that we do not presume that coding and memoing, as we have unpacked them, are the only steps or means to developing compelling analyses. The problem is that field researchers too rarely elaborate how they get from their data, topics, and questions to their findings and conclusions. The result is a kind of "black box," or a variant form of what J. Lofland termed "analytic interruptus" (1970), between the data-gathering and writing phases of the fieldwork enterprise that contributes to the sense that qualitative analysis is often the result of a mystical process or romantic inspiration. Of course, there are a few exceptions to this tendency, particularly in relation to the use of computer programs for qualitative analysis. One such example is Thomas J. Richards and Lyn Richards's "data-theory bootstrapping" approach (1994), which is linked to the computer qualitative analysis program called NUD*IST. But even here, inspection of their operations indicates that they are, generically, much the same as coding and memoing. So while coding and memoing may not be the only critical practices in developing analysis, we would contend that they are necessary steps in the analytic process. And second, we want to reemphasize that while the articulation and application of coding and memoing are associated closely with the "grounded theory" approach to developing analysis, they are of broader relevance and utility, being fundamental as well to what we previously discussed as theoretical extension and refinement.
V. Strategy Five: Diagramming

Generically, a diagram is a succinct visual representation of one or more relationships among parts of something, as in the classic genealogical family tree. Within the social science context, diagrams have been defined as “visual representations of relationships between concepts” (Strauss and Corbin 1990, p. 197) or as “data displays” that present information visually and systematically in the form of various “types of matrices, graphs, charts, and networks” (Miles and Huberman 1994, pp. 11, 91). However conceptualized, the distinguishing feature of diagrams or data displays is that they concisely order or represent the relationship among two or more elements or aspects of a setting that have been determined to be descriptively or theoretically relevant to its operation or functioning.

In thinking about diagramming, it is useful to keep in mind that the word diagram is both a noun and a verb—that is, it is both an object or a product of analysis and, when diagramming, an activity within the analytic process. As Miles and Huberman have emphasized, the creation and use of displays (diagrams) is not separate from analysis, it is part of analysis. Designing a display—deciding on the rows and columns of a matrix for qualitative data and deciding which data, in which form, should be entered in the cells—is an analytic activity (1994, p. 11).

Because we are elaborating on the development of analysis in this chapter, we focus on diagramming as an activity and, therefore, strategy of analysis. We find that many fieldworkers, including ourselves, have developed diagrams not only as useful supplements to extended textual passages, but also as alternative forms of visual representation. Here we examine briefly four forms of diagramming—taxonomies, matrices and typologies, concept charts, and flow charts—and refer you to Miles and Huberman’s Qualitative Data Analysis (1994) for a much more comprehensive discussion of diagramming and the range of diagrams or data displays you may want to consider.

A. Taxonomies

We noted earlier in the guide that one of the basic functions of qualitative fieldwork is to describe the characteristics of the phenomena or topic observed and the forms it displays. To do the latter is to provide answers to a number of the focal questions raised in Chapter 7, as well as implied by the eight forms of propositions, such as: What are the topic’s types? What are the stages, steps, or sequences in a process? What are the set of factors that interact to cause topic X? Or, what are the strategies/tactics for doing a particular task or realizing a particular end? Although the answers to these questions are most often expressed via written text, they can also be elaborated diagrammatically as a taxonomy. As suggested in Chapter 7 (Section 1.5), a taxonomy essentially is a diagrammatic display of all of the forms of the folk or theoretic category being studied. It shows what is presumably a thorough listing of all of the terms that are variants of the focal category or topic and how they are
connected. To illustrate, we refer you back to Figure 7.2, which provides, in outline form, a taxonomic elaboration of an answer to the question of how the homeless survive materially on the streets. There we see three core types of material survival strategies, with each having two or more subtypes. There are, of course, forms other than the outline one for representing taxonomies diagrammatically. These include the tree or network form and the box diagram, both of which are shown, along with the outline form, in Figure 9.2.

1. Outline Diagram

```
Focal Topic/Phenomenon

A. 
  1. a.
  2. b.
  3.  
B. 
  1.  
C. 
  2.  
D. 
  3.  
```

2. Tree/Network Diagram

```
Focal Topic/Phenomenon

A B C D
1 2 3
a b 1 2 3
```

3. Box Diagram

```
<table>
<thead>
<tr>
<th>Focal Topic/Phenomenon</th>
</tr>
</thead>
<tbody>
<tr>
<td>A B C D</td>
</tr>
<tr>
<td>1 2 3</td>
</tr>
<tr>
<td>a b 1 2 3</td>
</tr>
</tbody>
</table>
```

Figure 9.2  Forms of Taxonomic Diagrams.
Adapted from James P Spradley. Participant Observation, 1980.
B. Matrices and Typologies

As well as diagramming the connections among the various forms or types of a focal category or topic, taxonomies provide a springboard for matrix making and typologizing by generating questions about the similarities and differences among the included items within the taxonomy or their relationship to other situationally focal topics. Matrices and typologies constitute diagrammatically expressed answers to these questions. Returning to the taxonomy of material survival strategies, for example, it is reasonable to wonder about the extent to which their use varies among the homeless. Snow and Anderson (1993) explored this question as well. Cross-classifying types of material survival strategies and types of homeless, they created a matrix that clearly illustrated what they suspected: noteworthy variation in the use of these survival strategies across different types of homeless individuals.

Matrices, in general, are based on this very kind of cross-classification of two or more dimensions, variables, or concepts of relevance to the topic or topics of interest. In their discussion of matrices, for example, Miles and Huberman define them simply and mechanically as “the ‘crossing’ of two lists, set up as rows and columns” (1994, p. 93) and provide a number of examples, including event/chronological, checklist, and effects matrices. A number of the figures we presented earlier further illustrate this cross-listing or classification metric that is at the genesis of matrix-making. Figure 5.1, for instance, illuminates the relationship between different kinds of data sources and different data-gathering methods, and Figure 6.1, based on the cross-classification of units of organization and aspects of situations, shows how different fieldstudies typically work at the intersection of units and aspects.

Typologies are similarly based on the cross-classification of two or more ideas, concepts, or variables, each typically with two values, such as “yes” and “no” or “present” and “absent.” The prototypical typology in sociology, and perhaps in the social sciences, is the two-by-two table, which is illustrated in Figure 7.2. Because of its apparent simplicity, it often appears, at first glance, to be a relatively unsophisticated analytic device. But, as we all know well, appearances can often be deceiving, and such is the case with the two-by-two typology. Such typologies, as C. Wright Mills reminded us some time ago, are “very often genuine tools of production. They clarify the ‘dimensions’ of the types [you are working on], which they also help you to imagine and build” (Mills 1959, p. 213). Indeed, Mills goes on to declare that:

I do not believe I have written more than a dozen pages first-draft without some little cross-classification [i.e., typology]—although, of course, I do not always or even usually display such diagrams. Most of them flop, in which case you have still learned something. When they work, they help you to think more clearly and to write more explicitly. They enable you to discover
the range and the full relationships of the very terms in which you are thinking and of the facts with which you are working.

For a working sociologist, cross-classification is what diagramming a sentence is for a diligent grammarian. In many ways, cross-classification is the very grammar of the sociological imagination. (Mills 1959, p. 213; see also Miles and Huberman 1994, p. 194, on "substructuring" variables)

C. Concept Charts

A third display strategy useful for both developing analysis and illustrating it is to chart diagrammatically how key concepts are related to each other. Whatever the character of the concepts—be they folk-based, theoretic, or a mixture, it is not always clear how they fit together or intersect, if at all, with respect to the focal topic. Engaging in some form of concept charting can help to illuminate and understand these connections. Not surprisingly, there is no one way to explore these conceptual connections. Prior to the advent of computer databasing, fieldworkers were likely to use various confirmations of physical space—floors, walls, bulletin boards, and the like—to actually spread out their various conceptual ideas and notes. Speaking at a social science session on fieldwork in the early 1980s, for example, Carol Stack reported that when doing the fieldwork for All Our Kin: Strategies for Survival in a Black Community (1974), the need to keep her notes safe from her active child led her to pin notes on walls throughout her apartment. While the safety of her notes was the initial impetus for such maneuvering, she soon discovered this practice was very useful in itself as a way to display her data in various configurations and thereby enable her to order and reorder them more easily. In light of the variety of computer data input, filing, storage, and retrieval functions available today, such physical mapping and charting exercises may seem both humorous and unnecessary. However, we would caution against such a patronizing stance toward time-honored procedures since many fieldworkers find computers sometimes too confining for the task at hand. If spreading out notes on a floor or tabletop or pinning up ideas on walls, or even writing on multiple blackboards in empty classrooms (Agar 1991, p. 192), help you to work out the relationships among concepts, by all means proceed in that functional “low tech” manner.

Although it is probably reasonable to assume that most fieldworkers engage in some concept charting, it is relatively rare for these organizing charts to appear in their final reports. Sometimes, however, the substance or complexity of the materials prompts their presentation. Such was the case in Figure 7.1, where we show the relations among the eight basic questions addressed. Another example of concept charting is provided in Figure 9.3, which displays forms of work behavior and their relationships identified by Randy Hodson (1991) in his examination of ethnographies in the workplace.
D. Flow Charts

Flow charts, the fourth diagramming strategy we accent, typically include some number of the key concepts or terms that may be featured in each of the above diagram forms, but are now arranged or ordered in terms of their relationships through time or in a process rather than as static entities. The three-element chart with which we began this guide (Figure 1.1) is an example of a simple flow chart of the temporal relationship among the three major fieldwork tasks. As another illustration of flow charting, consider Figure 9.4, which diagrams or charts the various career paths of different types of homeless. The so-called “recently dislocated” (those who have been on the streets for less than six months), for example, sometimes quickly find their way off the streets (path 1→4) but also frequently evolve into “straddlers” (path 1→2), who find themselves more or less suspended
between the worlds of the domiciled and the more chronically street homeless typed the "outsiders."

In their detailed treatment of "data displays," Miles and Huberman (1994, p. 93) speak of flow charting as networks, which they define as "a series of 'nodes' with links between them." But we would caution here not to presume that all network diagrams are flow charts in a temporal or processual sense. Certainly network diagrams can be used to depict directional flow, but the data points represented as nodes have to be temporally dispersed in some fashion.

The graphing software packages that are now so abundantly available make the kinds of diagramming we have described (as well as yet other forms of it) relatively easy. We ought therefore to expect that diagrams will figure ever more centrally in the analytic process and in fieldwork reports.

VI. Strategy Six: Thinking Flexibly

The final analytic strategy we want to accent is best captured by the phrase "thinking flexibly." Other words or phrases that flush out what we have in mind here include mental elasticity, open-mindedness, unflinching curiosity, and even playfulness. In order to enhance the prospect of your thinking flexibly as you develop your analysis, we suggest two sets of guidelines, one proscriptive and the other prescriptive.

By proscriptive guidelines, we are suggesting, of course, a number of things you should avoid and thus guard against. The major ones include:

- Don't become too locked in or committed to a particular theoretical perspective or line of argument too early in the analysis process. Keep in mind that
theoretical perspectives function much like picture frames, focusing attention only on some things to the neglect of others and articulating the relationship only between those things that are within the frame. Certainly as the analysis progresses and attention becomes more focused, some perspectives will become much more central to your analysis. But even then, don’t foreclose the prospect of considering the analytic utility of other perspectives.

- Don’t limit your analysis too early to a single form of theoretical development (e.g., grounded theory, theoretical extension, or theoretical refinement—see Chapter 8, Section 1.B.4) or to one analytic model to the exclusion of another. While the appropriateness of one model over another is dependent on the kinds of questions asked and the kinds of data collected, there is rarely any need to make a definitive decision regarding the analytic model in the early stages of the analysis process. Far better to play with the data by coding it broadly and thinking in terms of various analytic possibilities.

- Don’t allow the considerable computerized data filing and storage possibilities and the kindred qualitative data analysis programs to lull you into thinking that the hard analytic work is done once your logged notes are coded and stored. As we have noted at various points in this guide (Chapter 5 II.C and Section III.A.2 in this chapter) and as emphasized by all of the works listed earlier on computer-aided analysis, the computer and the various software programs designed for filing, storing, and retrieving qualitative data are no substitute for the hard intellectual work required to make sense of the data sociologically, anthropologically, or from the vantage point of other disciplinary interests. The computer and the associated programs can facilitate the analysis, but you still have to make the key decisions regarding appropriate conceptualizations, theoretical connections, and the “take-home” significance of your research.

Turning to the prescriptive guidelines, we refer to a number of practices that are part and parcel of thinking flexibly and that you will therefore want to pursue as you develop your analysis. These are the “do’s” rather than the “don’ts.”

- Rephrasing: The sheer way a question (or answer) is phrased or worded can greatly facilitate or deter your thinking. When you are blocked, try using new words and new word orders. C. Wright Mills speaks of this as an “attitude of playfulness toward the phrase and words with which various issues are defined” (1959, p. 212). For example, instead of speaking of “causes,” you might use the related but different term “facilitants”; instead of the verb “functions,” perhaps the word “serves” might better capture the matter at hand.

- Changing Diagrams: If you have already diagrammed an analysis in a form outlined above, but it does not quite capture what you envisioned based on your data, try a different form of representation, as in (1) a different kind of line drawing, (2) mathematical notations or their equivalents, or (3) physical objects from which you can construct three-dimensional models.
• Constantly Comparing: Constantly comparing items under analysis can stimulate ideas: How is this instance of X similar to or different from previous instances? How is X in this setting similar to or different from X in another setting? In what ways do the various members of this type or category differ? Posing and answering such questions is to engage in what has been variously termed a “constant comparative method” (Glaser and Strauss 1967, Ch. 5) and “compositional analysis” (Coffey and Atkinson, 1996, 124–135; Spradley 1980, pp. 130–139).

• Talking with Fellow Analysts: As mentioned above regarding the management of anxiety, you should be in contact with others interested in your project so that you have a sounding board of sorts. (If you are engaged in team field research, then, of course, you have a built-in sounding board.) Aside from, and in addition to, the morale boosting function of being with friendly fellow analysts, such associates may also stimulate your thinking. Talking with others who are knowledgeable and supportive can help to clarify in your own mind what it is that you are trying to get at.

• Periodic Distancing: We noted in Chapter 4 that good field research is partly contingent on reaching a chronic yet healthy tension between closeness and distance or involvement and detachment (Section 1.C) This tension also is of relevance to the analysis process, as it will help you zoom in and out so that you can assess things up close but also from a distance, thereby gaining perspective and thinking about the overall picture. In other words, descend into detail, to be sure, but balance that descent with self-conscious efforts to perceive a general design, overall structure, or, as phrased above, a propositional answer to a question about a topic.

In suggesting the above prescriptive and prescriptive guidelines for thinking flexibly, we do not presume that they are exhaustive. In fact, we suspect other qualitative researchers might very well add to the list. But the suggestions provided should be sufficient to help you be conscious of the importance of thinking flexibly and even, we hope, actually doing it as you develop and write your analysis.

We divide the third major task of doing a field study— that of analyzing data— into the two subtasks of developing analysis (discussed in this chapter) and writing analysis (treated in the next chapter). This division is in one sense artificial because the analyst is clearly doing an enormous amount of writing in pursuing one or more of the six strategies we describe in this chapter. But, in another sense, developing and writing analysis are different and require separate discussion. Developing has to do with articulating a general approach from and toward one’s data, whereas writing is more concerned with the social psychology of writing per se and with the specific design of written reports. We now turn to these and related aspects of writing analysis.