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Analytical Strategies

What Is Analysis in Qualitative Research?

A classic definition of analysis in qualitative research is that the "analyst seeks to provide an explicit rendering of the structure, order and patterns found among a group of participants" (Lofland, 1971, p. 7). Usually when we think about analysis in research, we think about it as a stage in the process. It occurs somewhere between the data collection phase and the write-up of the discussion. Under this narrow definition, analysis is about what we do with data once collected: it is concerned with how we bring conceptual order to observed experience. When using emergent designs, however, a stronger emphasis is placed on analysis as an activity concurrent with data collection. For example, in grounded theory studies, the analytic process can be thought of as a braid with data collection, analysis, and interpretation as the braided strands. There are two assumptions that underlie this approach. First, there is an assumption that analysis rests solely with the researcher. Second, there is an assumption that analysis begins when we start collection of data. In this chapter, I approach the discussion of analysis with a broadening of these assumptions.

Analysis Occurs Throughout the Research Process

Although there is typically a period in the research process where analysis is the main focus of activity, it is also important to think about analysis

as something that occurs throughout the research endeavor. Analysis occurs at all stages of the research, from the articulation of the research problem to the discussion of implications for theory and practice. If we think about analysis as having to do with processes of selection, interpretation, and decision making, then when we make choices about who to talk to and the kinds of questions we want to ask, we are being analytic by virtue of setting a course for the research. Exclusion of some aspects of reality and inclusion of others at an early stage in a project profoundly shape the course of analysis in a project. When we transcribe data from verbal to written formats, we make decisions about sentence structure, pauses, intonation, and meaning. These micro-level decisions are also part of the analytic process. Analysis, at all stages of the project, involves being self-conscious and explicit about the way that we make decisions and give direction to the research process.

Analysis Is an Interactive Process Shaped by Participants and Researchers

In the spirit of a coconstructionist framework, it is important that we take into account the analytic interplay between the researcher and participants. When we engage with participants in an interview or focus group setting, it is important to recognize that our participants are also analytic. They interpret our questions (sometimes in quite different ways), are selective in what they choose to tell us, and, in their response to questions, are quite deliberate about organizing portrayals of their own experience. Their decisions shape the course of our analytic efforts. This is essentially an interactive process. As Kvale (1996) indicates, participants often begin with a description of their lived world, but in the course of the interaction with researchers, may come up with new meanings, interpretations, and connections in their own life world. When researchers offer on-the-spot interpretations of what participants are saying, the participants may in turn offer different explanations or "correctives" to the interpretations being made by the researcher. It is in this regard that the interactions that occur in an interview or an observational episode are part of collaborative meaning-making episodes that include many participants and many layers of interpretation and analysis. As part of this, there are times when researchers deliberately engage participants in a process of thinking through particular themes or interpretations (Rapley, 2004). Rather than gathering data from participants and then analyzing it, researchers can engage participants as partners in the knowledge production effort.

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Analysis Is Thinking and Writing

Laurel Richardson (2003) talks about writing as a method of inquiry. While we often think of the final write-up of a project as a mode of telling about the social world, it is also a pervasive activity throughout a project that serves as a method of discovery and analysis. Through the process of writing at various stages in the project, we work through how we are thinking about our topic of inquiry and our relationship to it. From this perspective, writing is the means by which we make our analytic process manifest and available for review. According to Richardson, it is through writing that we word and reword the world we are studying. Writing is a research practice, not simply a research product, through which we express our analytic insights and constructions of lived experience.

Analysis Is a Process of Selection, Interpretation, and Abstraction

One of the reasons we do social scientific research is to come to a different understanding of the social world. In the absence of analysis, we would have largely undifferentiated descriptions of lived experience. Analyzing social reality is a process of thoughtful reflection whereby the researcher serves as a catalyst in the creation of an ordered, conceptual portrayal of the reality at hand. At the very least, in descriptive-oriented studies, this analytic process involves the selection of certain kinds of reality to study and present. Implicitly, this is a meaningmaking process that involves the construction of that reality. In the same way that the photographer brings us snapshots of reality, the researcher brings to the reader meaningfully created windows on social reality. Moreover, in studies where the aim is to interpret these realities and generate explanation, this involves a process of abstraction that is a kind of "double hermeneutic" that involves the "dialectical interplay" between the subjective meaning of people's experiences described using everyday language and the researcher's reconstructions of that reality using emerging concepts and interpretations (Rothe, 1993). For the social scientist, it means articulating a conceptual (i.e., abstracting) language in an effort to order and understand everyday language and experience. For Schutz (1971), this involves creating "second order constructs," which are the "constructs of the constructs made by the actors on the social scene" (p. 6). Hence, although participants are contributors to the analytic process, it is typically the case that the researcher has the final word through analysis.

These assumptions, when taken together, create a portrayal of analysis that is "switched on" at the beginning of the project and that is shaped by

decisions at all stages of the research; interactive influences of participants; and the active meaning-making process of coding, interpretation, and writing.

Analysis for What?

Given the range of epistemological assumptions and the diversity of methodologies, it is important to recognize that analysis has many purposes. At the most general level, we can consider several important distinctions that can guide our thinking about analysis:

Nomothetic and Idiographic

In the philosophy of science, there are two broad purposes for scientific analysis. Basing its name on the Latin root nomos, which means laws, consistencies, or regularities, nomothetic science is concerned with the analysis of social reality in order to identify patterns and uniformities (Crotty, 1998). By contrast, the Latin root idios can be translated to mean individual or idiosyncratic aspects of reality. Idiographic science is therefore concerned with the analysis of the individual in order to understand that which is unique and is concerned with the variability of individual behavior. When we conduct qualitative research, we can do either idiographic or nomothetic research, or some combination of the two. For example, when we conduct case study research, we are primarily interested in understanding the unique ways that individuals in families navigate relationships and make choices about their own lives. In nomothetic research, we might be more inclined to interview many people and seek to understand some of the patterned ways or shared meanings that people have in their lives. For example, in grounded theory studies, the goal of research is to create categories that reflect some of these common experiences. As a result, there is often a tension in qualitative research between examining and maintaining the integrity of the individual case in research, and the tendency toward fragmentation of the case in order to identify themes, patterns, and uniformities. Both provide valuable information—and they can be used compatibly in research projects.

Emic and Etic

When we conduct qualitative research, there is a tension that exists between the insider accounts of those who are experiencing the phenomenon (i.e., emic) and the outsider perspectives of the researcher or observer who is examining that experience (i.e., etic). The way we as researchers align ourselves with these perspectives has profound implications for how we conduct analysis.

The emic perspective most closely aligns with an idiographic approach, which is a case-based position that focuses on the specifics and constraints of everyday life (Denzin & Lincoln, 2003). Furthermore, an emic perspective also seeks to understand the multiple ways in which cultural insiders view the reality of which they are a part in order to understand why people think and act in the different ways they do (Fetterman, 1998). An etic perspective, by contrast, places a greater emphasis on the ways in which preexisting theory or empirical findings can shape how researchers orient their own inquiry and make sense of the results.

The tension between emic and etic perspectives has been particularly salient in ethnographic research. It has highlighted the representational challenges associated with having an outsider ethnographer with an etic perspective observe and portray the beliefs and practices of everyday cultural life as they are experienced within (the emic perspective). There are a number of ways that researchers have approached this tension between insider and outsider accounts. Morse and Richards (2002), for example, argue that ethnography is best conducted by researchers (i.e., using an etic perspective) who are not part of the cultural group being studied because they can see more clearly the beliefs, practices, and values of participants by virtue of being outside that group. At the same time, there has been a critical dialogue within ethnography that has questioned the "production of texts that gave the researcher-asauthor the power to represent the subject's story" (Denzin & Lincoln, 2003, p. 21). From this perspective, the etic viewpoint is problematized. A third position would argue that both emic and etic positions are markers along a continuum of different analytic styles (Fetterman, 1998). In this regard, the argument is that both emic and etic are necessary for good analysis, whereby the qualitative researcher starts with the cultural native's emic point of view but then seeks to make sense of those data in relation to the etic tools of scientific theory and prior research.

When we ask the question, "Analysis for what?" the distinction between emic and etic raises a fundamental question about how we think about the products of our research efforts and the degree to which they represent outsider and/or insider perspectives. How we think about the products of our analysis is contingent on our epistemological beliefs. If our beliefs are rooted in a positivist or postpositivist paradigm, then a leaning toward an etic perspective is consistent with those beliefs. If, on the other hand, our approach is social constructionist or postmodern, then there is a blurring of the boundaries between etic and emic whereby research accounts are viewed as "interpretations

of interpretations" (Geertz, 1973, 1983) or second-order stories (Daly, 1997). In this regard, insider and outsider views are necessarily confounded as they interactively contribute to the construction of analytic outcomes.

Description Versus Explanation

Although the boundary between description and explanation is not a clear one, there is a good deal of divergence among qualitative approaches with respect to the degree to which researchers are expected to produce theory (explanation) or description as analytic outcomes. Grounded theory methodology has been most explicit with respect to the importance of generating theoretical explanation as an outcome of analysis. In their original work, Glaser and Strauss (1967) argue that theory generation is a necessary component of a grounded theory approach. Theory is inductively generated through a process of comparative analysis of grounded data. Theory is by nature a form of explanation that goes beyond description and involves the construction of categories, properties, and their relationships. The goal of ongoing theorizing activity within grounded theory is to generate empirical generalizations that can both delimit and broaden the theory so that it is "more generally applicable and has greater explanatory and predictive power" (Glaser & Strauss, 1967, p. 24). Although theoretical explanation has been viewed as a necessary element of grounded theory work (LaRossa, 2005), it would appear that theoretical explanation is often missing in the final products of grounded theory research (see Daly, 1997).

By contrast, ethnographic and phenomenological approaches have placed a greater emphasis on description. For example, within the ethnographic tradition, "thick description" (Geertz, 1973) has stood out as the primary analytical aim. In phenomenology, the goal of the research is to examine a phenomenon among participants by paying attention to "first hand experiences that that they can describe as they actually took place" (Giorgi & Giorgi, 2003, p. 27). In both of these traditions, the primary goal is to capture as closely as possible the descriptions of lived experience in a particular context.

Although these methodologies place different emphasis on the importance of description and explanation, it is prudent to think of this as a matter of degree. For example, it is not possible to present anything that even approaches "pure description," for all accounts of reality that are put forward in research reports involve a number of analytical features. It is necessary to be attentive to the conditions under which the descriptive accounts were produced; it is important to provide commentary on how and why some accounts are brought forward and others not; and it is necessary to be

attentive to the ways certain themes or topics are chosen as part of the representation of descriptive accounts. Similarly, it is difficult to think about "pure explanation" in qualitative research without the benefit of rich descriptive accounts that ground and give vitality to the inductive theories.

When embarking on the analysis of data, it may also be useful to make the distinction between analysis and interpretation. Like description and explanation, we can differentiate the conceptual meanings they hold; however, it is difficult to separate them when engaged in the process of doing analytic/interpretive work. Definitions of analysis focus on the process of identifying or separating something into component parts. Dictionary definitions use key phrases such as "examining the constitution," "showing the essence," or "ascertaining the constituents" (Concise Oxford Dictionary of Current English [Oxford Dictionary], 1990). Interpretation focuses on the process by which we make meaning of a component part. Here, the dictionary definitions emphasize "to understand," "bringing out," or "explaining the meaning of" (Oxford Dictionary, 1990). Hence, when we examine data, we are engaged in a recursive process of analysis and interpretation whereby we go back and forth between trying to see the component parts and the meanings that these have for understanding the broader phenomenon (see Figure 9.1).

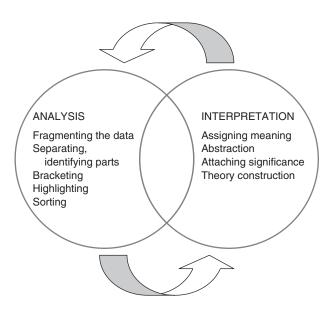


Figure 9.1 The Interplay Between Analysis and Interpretation

Transcription as Part of Analysis

Researchers sometimes make reference to a stack of transcripts or a folder filled with field notes as their "raw data." The implication is that these are unprocessed or unanalyzed segments of experience. The "accurate" production of transcripts is therefore rooted in a realist ontology (Poland, 2002). This in turn is built on the assumption that the interview itself is a representation of a social reality that is experienced and expressed by participants. Based on a realist assumption, the way transcriptions are done can raise important questions about reliability and validity of the data (Kvale, 1996). These are assessed on the basis of whether the verbatim transcript is seen as "a faithful reproduction of the oral record, with the latter being taken as the indisputable record of the interview" (Poland, 2002, p. 635).

It is important to recognize, however, that field notes and transcriptions are in fact "textual products" (Atkinson, 1992, p. 5). This involves a process of construction beginning with the practical transactions and activities of data collection, the literary activities of writing field notes, and drawing on literary and grammatical conventions when transforming verbal accounts into textual accounts. Transcription itself is a type of representation that involves selection and reduction (Riessman, 1993). It also involves many decisions not only about what was said, but how it was said (Poland, 2002). Hence in contrast to a realist approach to transcription, a postmodern or social constructionist approach would pay attention to both the interview and the transcript as a "co-authored conversation in context . . . that is open to multiple alternative readings" (Poland, 2002, p. 635).

Doing Transcription: Setup

- 1. Ensure that respondent ID, date, and time of interview are clearly outlined as a header on each page.
- 2. Set margins so there is approximately one third of the page open on the right-hand side for open coding.
- 3. Number all lines of text for easy reference.
- 4. Be consistent in the transcription of nonverbal expressions (laughing, crying, pauses, hesitations, etc.).
- 5. Be sure to make note of statements made with a sarcastic tone, or expressed with insincerity.
- 6. Set up a system of pseudonyms in order to protect confidentiality of participants—keep a glossary of these substitutions in a separate file that is kept in a locked place.
- 7. When using the services of transcribers, it is important that they be made aware of their ethical obligation to maintain confidentiality.

Like the process of analysis itself, it may be helpful to think about transcription as a process that involves different considerations at various stages. In the early stages of any data collection effort, there are good reasons to do some first transcriptions on your own. Sitting down to listen carefully to a taped interview provides you with the opportunity to reexperience the interview at a slow pace. Engaging in this process, as difficult and as onerous as it may seem, is an opportunity to maximize attentiveness to what was said. It is important at the outset of this activity to have a structure for building on preliminary insights gained in the interview. Memoing during these first transcriptions is an excellent way to capture first interpretations of what is happening with the participant.

Doing your own transcribing at these early stages serves a number of purposes:

- Opportunity to develop a system of dealing with pauses, expressions of emotion, lack of clarity in the tape, and commentary on what might have been happening at the time in terms of interruptions or outside influences
- Appreciation for the challenges associated with turning talk into text—for example, decisions about where to put punctuation in spoken words and the implication for reading the text, how to handle tone of voice or phrases that are strongly emphasized, how to handle situations that may be "tongue in cheek," how to deal with overlapping talk
- Greater appreciation of how questions shape responses and the importance of looking at the data transcript as a dialogue

Once you have done several transcripts—and if the research budget allows—it is valuable to have someone help with the transcription. Keep in mind when enlisting the services of a transcriber that it takes approximately 4 or 5 hours to transcribe one hour of tape (although this will vary depending on the level of detail required—e.g., more time would be required for conversation analysis). When making the transition from doing it yourself to having someone else do it, the following may be helpful:

- Sit down with the transcriber and review the transcription techniques you used: What techniques did you use to deal with pauses, expressions, and grammatical conventions?
- Once the transcriber has done one transcription, it is useful to listen to the tape
 and review the transcript. You might then request modifications in style or
 technique, based on this review.

In the final stages of the research, you may wish to be more selective about what is transcribed. This is a utilitarian stage of data collection that can be more focused on transcribing the areas most directly relevant to the

emerging analysis. In grounded theory work, for example, transcription may focus on areas that contribute to theoretical saturation of categories or further development of the substantive theory. This involves selective coding in order to work toward the saturation of categories. Although it may be optimal to have the entire set of interviews transcribed, this may not be practical. This approach is an efficiency strategy that is contingent on having reached a level of confidence in the theory generation process. It does, however, require clear and specific directions about what parts of the interview should be transcribed.

Choice Points: How Much Detail to Provide?

Transcription, the transformation from oral to written text, always involves some level of selectivity. Macnaghten and Myers (2004) offer some choice points: The key is not which is right, but being consistent in how the transcripts are done.

- Using conventional spelling versus using spelling to indicate pronunciation (e.g., "So, I said to him ...")
- Indicating pauses versus leaving them out in favor of running text
- Including utterances (e.g., "uh-huh") or repetitive words versus ignoring these

In making these decisions, more is not necessarily better: "using a transcript that is more detailed than one needs is like giving a few unnecessary decimal places on one's statistics" (Macnaghten & Myers, 2004, p. 74).

Analytic Approaches in Various Methodologies

Every methodology, by virtue of its underlying assumptions and theoretical principles, approaches the analysis of data in a different way. As a result, there may be a different focus for analysis or a different language for analysis in each of the methodologies. Although there are some distinctive features in each of these methodologies, it is also the case that each of them has variation within its own traditions. For example, given the long history of ethnography and its development in a number of different disciplines, the number of analytic approaches is quite large. In grounded theory, there is not just one approach to analysis; due in part to a disagreement between the originators, there are several. In the discussion that follows, I have tried to capture some of the key components of each approach. Nevertheless, it is important to remember that these analytic approaches within methodologies are varied and at times contested.

At the same time, however, there are many similarities across methodologies and the intention is not to place rigid boundaries around any one of these approaches. In practice, there are many parallels between analytic approaches, and some methods are used in conjunction with each other. For example, Kvale (1996) talks about looking for the narrative structure in phenomenological research. Charmaz and Mitchell (2001) have explored the ways grounded theory methods can be used in ethnography. In a study of family dynamics in relation to childhood disability, Kelly (2005) uses a combination of ethnographic observations at a medical clinic, narrative interviews, and grounded theory analytic techniques. Hence there is both variability within these analytic approaches and permeability in the boundaries among these approaches.

One of the common features of all methodologies is the emphasis placed on doing analysis and interpretation as data collection proceeds. This is the intertwined "braid" of collection, analysis, and interpretation that is central to carrying out research that has an emergent and inductive orientation. This avoids what Kvale (1995) referred to as the 1,000-page problem that occurs when analysis waits until all of the data are collected. Analysis that is concurrent with data collection helps to focus the data collection effort and move toward analytic accounts that are full and saturated.

Some of the distinctive features of analysis for various methodologies follow.

Phenomenology

The starting point for any phenomenological analysis is the description of lived experience that is provided by the participant. Most important, the analyst's job is to see the world through participants' eyes. In more specific terms, phenomenological analysis is interested in "elucidating both that which appears and the manner in which it appears . . . it attempts to describe in detail the content and structure of the subjects' consciousness, to grasp the qualitative diversity of their experiences and to explicate their essential meanings" (Kvale, 1996, p. 53). This is a process of maintaining "fidelity to the phenomena" as they are experienced by participants (Kvale, 1996). To this end, there are several steps in phenomenological analysis (as outlined by Giorgi & Giorgi, 2003):

Attend to the Phenomenon Being Studied. Analysis begins with the descriptions provided by participants. The researcher reads and rereads transcriptions of the interview or written accounts of experience in order to see and appreciate the subjective experience of the participant. At this stage, the

researcher adopts a stance of deliberate naiveté in order to see the experience as the participant would see it.

The Constitution of Parts. Descriptions of experiential reality given in a phenomenological interview are often long and detailed; it is therefore useful to break down these accounts into meaningful parts. The researcher pulls apart the holistic account into meaning units that are formed by careful rereading of the description. This involves identifying "experiential structures that make up the experience" (van Maanen, 1990). It is a process of meaning condensation whereby the researcher marks off "natural" meaning units from complicated passages and then explicates their main themes (Kvale, 1996). At a practical level, this means focusing on the primary research question and eliminating digressions in the data.

Transforming Meanings in Data From Implicit to Explicit. Although rooted in description of lived experience, it is "ultimately meanings that phenomenological analysis seeks to discover" (Giorgi & Giorgi, 2003, p. 33). Researchers transform "raw data" into meaningful segments by a process of converting what are implicit or unarticulated meanings in lived experience so they explicitly render visible the meanings that play a role in the experience of the participant (Giorgi & Giorgi, 2003). This is essentially an interpretive process that involves the identification of themes and the assignment of thematic labels (Smith & Osborn, 2003). This transformation process of making meanings explicit involves not only highlighting the meaning that arises from the concrete experience, but also generalizing that meaning by identifying that it is an example of something and then showing what it is an example of.

Articulating the Structure of Experience. Analysis at this level involves reviewing the identified meaning units across cases in order to highlight the typically essential units. This is a procedure of creating typologies and underlying meaning structures that are based on the recognition of common constituent elements. This is a process that involves connecting similar themes and clustering them together under broader conceptual labels. Usually in an analysis of this type, there would be variability in the experience of participants that would result in not just a single structure, but several. The overall aim is to identify the underlying essence of the phenomena being studied. In this regard, rather than focusing only on the particulars of individual experience, there is an effort to understand the essential elements of that experience by comparing across cases. In a study of 103 caregivers living with a family member with Alzheimer's disease, researchers conducted a

phenomenological analysis by identifying 38 preliminary structural elements in the data, followed by a refinement to 8 structural elements, and concluding with a synthesis statement about the nature of the experience (Holkup, Butcher, & Buckwalter, 2000). Typologies provide another strategy for organizing findings that show similarities, differences, and overlaps between and within classes of phenomena and are valuable for sorting through complex human behaviors in a variety of settings (Gilgun, 20005b).

Narrative

In narrative analysis, the central focus is on the way individuals tell the story of their own experience. Accordingly, we are interested in the content of the story itself—the events and activities that are included in the story—and the way the account or the narrative is constructed. When doing narrative analysis, it is important that we keep in mind that a story is a part of a person's life and not simply a representation of some other life. In other words, narratives are constitutive of a person's life, for it is through the telling of the story that meaning of life is communicated and identity is presented. In the study of human development and family relationships, narrative analysis is a means by which we can understand the life course itself. According to Daiute and Lightfoot (2004), narrating is inherently developmental and as a result, analysis of narratives can serve to examine the following:

- How does the story organize the experiences of one's life?
- What are the time and space frames that emerge as important in the organization of the story and the person's life?
- How do flashbacks and foreshadows enter into the present telling of the story?
- How does the story encompass other people, events, motivations, and judgments?
- What kinds of values and morals are included in the story?
- What are the internal and interpersonal conflicts that are experienced?

In keeping with this developmental focus, narratives also serve as a means for analyzing and understanding identities. Bamberg (2004), for example, suggests that the construction of story content is the construction of identity for the storytelling subject. In this regard, narrative analysis is also concerned with matters of positioning. When individuals story their lives, they are agentic and must always make choices about how they position themselves in relation to a wide range of competing and potentially contradictory discourses. As a result, the way the story is told in relation to various discourses becomes a matter of self-marking or positioning. Narrative analysis thereby becomes a matter of examining the identities of storytellers by

looking at how "they actively and agentively position themselves in talk—in particular with and in their stories—[with] an assumption the orderliness of story talk is situationally and interactively accomplished" (Bamberg, 2004, p. 137). Through this type of narrative analysis, stories are not simply tales of preexisting identities; they are actively constructed positions that are shaped by the demands and choices available in any interactive situation.

Narrative analysis is also critical for understanding the relationship between individual stories and family stories. According to Pratt and Fiese (2004), the stories of individuals and families are intertwined across the life course and as a result, they can provide insight into both individual development and family systems of change. Accordingly, narrative analysis can contribute to an understanding of this relationship in three ways (Pratt & Fiese, 2004). First, storytelling can be understood as an act through which children learn to become competent narrators of their own lives. Second, stories can be analyzed according to the message that provides lessons about values and cultural mores. Finally, stories can be analyzed for the ways they support the creation of personal identity that evolves over time within the context of the family.

When our focus of attention is on family stories, there are a number of analytical strategies that can be used. According to McAdams (2004), there are two different kinds of family stories that can be analyzed. The first type is stories told by family members in the presence of one another that may or may not be about family events but that serve to connect family members across generations and create a sense of family history and identity. These stories can be analyzed according to the standpoint of practice (How was the story told?) and the standpoint of representation (What was the story about? What were the main themes in the story?). The second type of family stories that are told about family may or may not include other family members as audience to the story. These are stories about family that are generated in order to make sense of turning points in one's own life or to account for and make sense of one's identity in relation to family experience.

Narratives can also be analyzed according to their temporal structure. Gergen and Gergen (1984) identify three types of stories that are concerned with the relationship between the self and the processes of transformation:

Progressive: In these stories, the protagonist tells a story of progress and growth that involves an increasing sense of integration and cohesion. These are stories of success, coming of age, and healthy transitions in development. They typically show an awareness of how change is occurring in relation to other people and events.

Stable: These are stories where there is little evidence of transformation. Events that do occur are not perceived to be significant or life altering. Rather, they are

included in the story as events and episodes of interest but that have little impact on identity or the assessment on one's own development.

Regressive: These are often stories of adversity that involve "coming undone" or unraveling. These experiences lead to emotional anguish, loss, and in severe situations suicide or attempted suicide. These stories are often archetypal and contain common themes of decline, regression, and disintegration.

Narrative analysis, then, provides a means for gaining insight into the way people story their own lives. It provides a means for examining both the process by which people create and reconstruct that story and the kinds of events and experiences they identify is being salient in that construction. When doing narrative analysis, we must always pay attention to the relationship between how the story has been told and how the story has been received by the listener. In qualitative research, we are one of those listeners, and we play an important role in the way we interpret the narrative account that is provided. Hence, when analyzing stories, we can think of the analysis of narrative being divided into two phases: descriptive and interpretive (Murray, 2003):

Descriptive. The focus of analysis here is to provide an overview of the plot by examining both the content and structure of the story. In terms of content, this involves highlighting characters and their relationships, describing settings, and providing an overview of key events. The analysis of structure involves examining the temporal sequence of the story according to a beginning, middle, and end; the identification of subplots that may exist within the main narrative; and the identification of key turning points or epiphanies in the story line. The analysis of structure also involves looking at the way the story is embedded in the context of relationships, family experience, or broader social and cultural events. We might also analyze a set of stories for gender differences in the way women and men tell the story, use language, or emphasize different kinds of experiences. Riessman (1993) suggests that when we analyze for the structure of the story, there are a number of questions we can ask:

- How is the story organized?
- Why does the informant tell the story in the way she chose to tell it?
- How did the audience for the story (potentially just you as the researcher) influence the way the story was told?
- What is taken for granted by speaker and listener?
- How is this story situated in social, cultural, or institutional discourses?
- Who has or is given power in (or through) the story?

- Whose voice is prominent in the final product?
- Are there different "poetic structures" in the narratives? For example, do participants use different vocabularies or construct the story in different ways?

Interpretive. As researchers, we are in a position both to elicit and to interpret narratives from participants. As a result, it is important that we pay attention to our own assumptions, beliefs, and similar stories when we listen to stories from our participants. In contrast to the traditional distinction between active storyteller and passive audience, interpretation of narratives occurs at the interface between the narrator's intention and the reader's meaning making of the story. Narrative interpretation is a hermeneutic process that involves the correlation of participant and researcher meanings. As part of this interpretive process, the researcher may examine ways the story can be understood within a variety of theoretical frameworks in an effort to understand, for example, the meaning of a particular experience such as loss, providing care, or being in a love relationship. At a more abstract level, stories can be interpreted in relation to theoretical accounts of the meaning of emotions, patterned relationships, or family dynamics. Of critical importance in the interpretive analysis of narratives is to consider the degree to which multiple interpretations of the same story are possible. Specifically, "How open is the text to other readings?" (Riessman, 1993, p. 61).

Although narrative analysis in the qualitative tradition has focused on the descriptive and interpretive aspects of the story, other researchers have focused on ways to score and code the thematic content of family narratives (Fiese & Spagnola, 2005). While these approaches take a quantitative orientation to analysis, they may serve as a useful companion to qualitative narrative analysis.

Ethnography

The analysis of ethnographic data seeks to provide detailed description and interpretation of the way individuals or groups conduct themselves within the context of culture. The term thick description (Geertz, 1973) places the emphasis on providing detailed accounts of these cultural experiences. The primary emphasis is to describe and analyze the specific and particular aspects of a social setting that is grounded in the local. Accordingly, ethnographic analysis involves providing detailed accounts of when, where, and how events occur in the situation. Spradley (1980) refers to this stage of analysis as the "grand tour" where the researcher orients the reader to the main features of the culture or subculture under study. This "tour" involves being a narrator of the cultural story through writing about what you have observed and seen.

Ethnographic analysis involves both the provision of descriptive accounts of what was observed and interpretive commentaries on the meanings of the cultural experiences. Interpretations become the means by which researchers make comparisons with other cultural groups and provide commentary on the meanings that their observations hold. These descriptive accounts involve the interpretation of "what is going on," which can occur in relation to a number of focal areas:

Key Events. These are social activities that occur within the culture or subculture that can be analyzed for meaning. These can be celebrations, key meetings in an organization, ritual, or unexpected occurrences. In families, they are memorable events (weddings, funerals), transitions (launching children, retirement), or difficult turning points (separation, accident, illness). Why are these events significant? In what ways do these events help us to understand the values and practices of the individuals being studied? Who are the key actors in these events and why and how are their roles important?

Patterns. The identification of activity or behavioral patterns involves a process of comparison among participants in the culture. This can include routine activities that are similar across participants and can also include common meanings that they bring to their experience. What are the common cultural meanings that people bring to objects, places, or situations? When examining ethnographic data for patterns, researchers can look for themes or construct typologies that reflect different patterns of activities (Lofland, 1971). Similarly, they can create various types of classification systems or taxonomies that have the function of naming and displaying data in a way that shows relationships among components of the data.

Space and Time. One of the strengths of an ethnographic approach is that it examines social and cultural practices in situ. As a result, analysis needs to be attentive to an examination of where and how events and activities occur. Specifically, what are the characteristics of the physical place where these events occur? Are there unique features of this space and place? Maps that provide visual representations of homes, communities, or organizations can serve as a useful tool in the analysis of activity (Fetterman, 1998). Analyzing for temporal experience is also valuable. What is the sequencing of events? How important was time in these activities? Was there a past, present, or future orientation to the activities? How do activities or beliefs change over time?

Cultural Meanings and Themes. Although ethnographic analysis is concerned with the identification and description of specific parts within a

culture, it is also concerned with the systems of meaning within a culture that have to do with collective beliefs, practices, values, symbols, and worldviews. These are the cultural themes that are recurrent, have a high degree of generality, and reflect shared assumptions about the nature of commonly held experience (Spradley, 1980). These cultural themes can be explicit and taken for granted (as indicated through rules, public norms, or announcements) or tacit (whereby people do not express them easily but nevertheless understand the implicit and unspoken meanings). For example, in some of my own research with fathers, although men made reference to working in a company that had an explicit family-friendly creed, they also referred to a tacit cultural norm: There was some danger for men who took advantage of flexibility strategies in the workplace because of a set of values and practices that primarily supported women in relation to these initiatives.

When our emphasis in ethnographic analysis is on families, there are a number ways that we can analyze for family experience:

Family as Context. When our focus is on individual actors within families, then families become a means by which we make sense of those individual lives within context. For example, if we are interested in understanding the activities and experiences of an aging parent who has moved into a son or daughter's home, then we can examine the ways that both the aging parent and the son or daughter's family must adapt to this transition. If our focus is on the meaning of the transition for the aging parent, then the family is a primary context for understanding this change.

Family in Context. When the family itself is the primary level of analysis, ethnographic analysis is interested in understanding the patterns of activity that go on in families within the context of a broader cultural system. For example, if we were to examine how families act in a religious organization setting, we could look at how their activities and behaviors as a family are shaped by the norms and practices of the religious organization. Specifically, we could look at the interactions between parents and children in the context of the religious organization in order to determine how parents seek to influence children and how children endeavor to influence parents. We might also examine other kinds of intergenerational influences that shape ongoing participation in that religious culture.

Grounded Theory

Grounded theory, like participant observation, is an oxymoronic term. In our everyday language, we think of something that is "grounded" as being

rooted, concrete, visible, and tangible. By contrast, "theory" is anything but grounded: abstract, ephemeral, hypothetical, and transsituational. Hence, when we talk about grounded theory analysis, it is important that we be mindful of this underlying contradiction or tension. At the root of grounded theory analysis is the dynamic interplay between observations grounded in experience and conceptualizations abstracted from those observations. Metaphorically, this process of analysis is like lengthening the spine in a yoga exercise: at the same time you lengthen the spine by allowing the tailbone to drop closer to the ground, you are also allowing your spine to extend through the top of your head. Grounded theory analysis is like this: simultaneous stretching down through to the ground and up through the head.

Epistemologically, this "stretching" involves a recursive cycle of inductive and deductive reasoning. Although grounded theory typically places an emphasis on the inductive creation of theory from observation, it also involves the deductive testing of various ideas that either existed prior to the research or emerged as part of the research. This is consistent with the original version of grounded theory (Glaser & Strauss, 1967), which talked about the primacy of generating theory while at the same time using existing or emerging ideas as a basis for theory verification. When we carry out grounded theory interviews using the principles of theoretical sampling, we begin to develop a stock of knowledge about the research questions that we then feed back to our participants as a way of verifying our understanding of the phenomenon (Johnson, 2002).

Although not a part of some of the original grounded theory writings, abduction also plays an important role in grounded theory analysis. As discussed in Chapter 3, abduction is a form of reasoning that involves a process of inference to the best explanation that links together theories, observation, and interpretation. In abductive reasoning, the focus is not on finding the correct explanation, but rather on using a variety of theories and ideas to generate insights and interpretations that provide the most meaningful way of making sense of the data (Dey, 2004). Furthermore, when using the processes of induction, deduction, and abduction in grounded theory research, it is also important to consider paradigm positioning as objectivist, constructivist, and postmodern assumptions will lead to different kinds of analytic approaches (see Chapters 3 and 5 for a review of these).

In grounded theory analysis, there are two fundamental principles that shape the overall approach to analysis: the importance of emergent design and the importance of theory as an outcome.

The Importance of Emergent Design for Understanding Grounded Theory Analysis. In an effort to be fully attentive to understanding the way participants

describe their experience, grounded theory approaches typically begin with limited structure and an open-ended approach to questioning and data collection. Embedded in this approach is an assumption that we can learn the right questions to ask by listening to what participants have to tell us. Although we always approach our inquiry with theoretical sensitivities that come from prior theory, research, and experience, we enter into the data collection phase with an effort to suspend preconceived ideas and remain open to new meanings, interpretations, and understandings.

At the root of an emergent design is the methodological principle of theoretical sampling. Theoretical sampling is a means for making analytic decisions throughout the research project. Theoretical sampling involves making choices about who to talk to next, what kinds of questions to ask, and where to look for meaningful information that will contribute to our understanding of the phenomenon at hand. In this regard, theoretical sampling is inherently analytical insofar as it involves assessments of what we understand at any point in time and decisions about how to deepen that understanding through subsequent data collection efforts. In grounded theory, analysis and interpretation cannot wait until all of the data are collected; rather, it must occur in the earliest stages of data collection. Fundamental to grounded theory analysis is that the researcher concurrently collects, codes, and analyzes data in order to decide what data to collect next and where to find them.

The management of an emergent design is contingent on making excellent notes throughout the process as a way of tracking decisions, recording insights, and generating theoretical ideas. In grounded theory research, these are known as memos and can serve both to shape the direction of the inquiry and serve as a record of the key methodological decisions that have been made in the research process (see text box on different kinds of memos).

Theory Is the Goal of Grounded Theory Research. In the same way that ethnography places thick description as the primary analytical outcome of the research, grounded theory methodology has theory as the main outcome. Generating theory is essentially a nomothetic process. In order to understand how something works under specific circumstances, it is necessary to identify the patterns through comparative analysis. Grounded theory is built on the premise of constant comparative analysis, which involves comparing new segments of data with other segments of data and existing interpretations. Through the process of comparison and the identification of similar elements and processes across cases, themes, patterns, and categories are created that reflect uniformities in the data. These are the basis upon which theoretical explanation is generated. In grounded theory analysis, the construction of a theory that helps to explain the specific topic at hand is

referred to as substantive theory. This is an explanation that is built from a set of grounded categories that are systematically interrelated and that serve to explain who, what, where, when, how, why, and with what consequences a specific phenomenon occurs (Strauss & Corbin, 1998). In the study of families, substantive theories would be at the level of explaining marriage adjustment during retirement, adult children returning home to live with parents, or the parenting experience of fathers of children with special needs.

Substantive theory serves as the basis for generating a more abstract form of theory that is known as formal theory. Formal theories are explanations constructed from the specifics of a substantive theory that, when compared with the similarities of other substantive domains, have the power to provide a more generic and abstract form of explanation. Formal theory is therefore more versatile and can be used to explain abstract features of social action and behavior. For example, in the study of families one could construct a formal theory of care by examining how care is understood in a variety of substantive domains that involve the provision of care including parents of young children, adult children to their aging parents, or siblings providing care to each other. A formal theory would build an explanation of care that included the common and essential elements of caregiving across those substantive domains.

Types of Memos

Memo writing is a means to actively record the process of conducting a grounded theory study. There are many different types of memos. Strauss (1987) provides an excellent account of different kinds of memos illustrated with examples from his hospital research. In summary form, here are some of the different kinds of memos you might write as a way of thinking through your analysis:

Textual Memos: These are descriptions of how we are thinking about a code we have assigned to a data segment, or how we have assigned names and meanings to data. Strauss (1987) also refers to these as preliminary and orienting memos and encourages researchers to stop coding in order to capture interpretive ideas that emerge along the way. This is a way to capture early hunches and interpretations.

Observational Memos: Given the emphasis placed on talk in interviews and transcriptions, it is important to write memos that help to preserve context. These memos focus on what our other senses are telling us in the research—what we have seen, felt, tasted, or experienced while doing the research. This is a good place to pay attention to intuitions too!

Conceptual/Theoretical Memos: As the question, "What is going on here?" rings through our heads, it is important to write about the development of a category or how one or

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more concepts are directing us to think about a category as being important. As Richardson (2003) has indicated, writing is thinking, and sometimes just starting the process of writing out our hunches helps us with the process of developing our ideas. These memos are crucial in theory development as they allow us to puzzle about category relationships and possible pathways for integrating the theory.

Operational Memos: These are memos that are very practical. They might have to do with remembering to ask a new question that arose in a previous interview. These may also be about sampling strategies, how I might go about trying to achieve saturation on a category, or thoughts about who I might talk to next. These are memos primarily having to do with methodological procedure.

Reflexive Memos: This is a broad category and it potentially cuts across all others. These are essentially observations of ourselves—our voice, our impact, and our changing roles throughout the research process. Through these memos, we pay attention to our arising values, feelings, mistakes, embarrassments, and personal insights and reflect on the implications for how we are making sense of the data.

Stages of Grounded Theory Analysis

Analysis in grounded theory occurs in a number of different stages:

Stage I: Open Coding and the Creation of Concepts

Once the first verbal data have been transcribed it is necessary to begin immediately with the process of data analysis. Open coding is a way of opening up the data in order to explore what it means. Line-by-line analysis does not necessarily mean giving a label to every single line of text, but rather providing labels to those data segments that can be marked off in a meaningful way (After all, a line of text is arbitrary, depending on where you set the margins!). Like any other process that is early in the stages of discovery, it is important to "try out" various codes or labels without worrying too much about "getting it right." Assigning a code to data is a matter of choosing a word or creating a phrase that serves to indicate the meaning of a segment of data. This is essentially a creative process whereby we allow our reading of the data to invoke or provoke a set of meaningful labels. The names we use are also somewhat arbitrary in so far as other researchers might use other labels depending on their background and interpretations (Strauss & Corbin, 1998). In the early stages it is best not to be too choosy but to bring a word to something that stands out for us as being potentially meaningful or important. Sometimes we bring a name to this data episode; other times we might borrow a word from the participant that seems to stand out as having particular importance. For example, in our interviews with single parent families about how they managed time, we coded one segment "learning to be late" after one woman used this term to describe the time stress of getting her young children ready; in another segment where a woman described her minute-by-minute micro-schedule for getting to work on time, we brought to it the term "fragile." In the first example of coding we borrowed from the language of the participant; in the second we imported a term that we thought was apt.

Questions to Help in Coding Data (from Charmaz, 2003a)

- What is going on here?
- What are people saying or doing?
- What is being taken for granted?
- How does the context shape what is happening here?
- · What is the nature of the process?
- Under what conditions did this process develop?
- What is contributing to change in this process?

Coding, then, is essentially a process of naming segments of data. Strauss (1959), based on an interpretation of John Dewey's work, argues that naming is central to any human's cognition of the world. To name is to provide an indication of an object, event, or action that can then serve as a basis for identification and classification. To assign a name to an event or an action is to indicate that it is part of a class of events that inherently involve locating, placing, and marking of boundaries. Open coding of a transcript involves exploring many possibilities for the data by assigning names to indicators that we see when we read through the data.

As our analysis deepens through the process of coding transcripts, we begin to see similarities in our participants' descriptions of events and activities. These common indicators give rise to labels that we call concepts. A concept is a label or name that we create that arises from repeated indications in the data that we then group together as a concept (LaRossa, 2005). Concepts are the basic building blocks of theory, and they involve grouping together under a common heading similar events, happenings, or objects that the researcher identifies as being significant in the data (Strauss & Corbin, 1998). Concepts that emerged early on in the coding of our interviews about time included stress, couple time, over-scheduled, or need for down time.

During the open coding stage of analysis, the primary focus is on breaking down or fragmenting the data into manageable segments and opening the

search for common codes that can be brought together as concepts with shared characteristics. In the days before computers, transcripts would be coded and physically cut up and placed in piles according to the common characteristics of the codes. I think of this as the traditional shoebox method whereby similar instances in the data are coded and classified together in separate "boxes" so that the researcher can begin to see the patterns across the data. Most software analysis programs begin with a process of creating electronic "shoeboxes."

The Power of Naming

Consider the power of naming in other contexts:

- Usually when we think about names, we think about how they shape identity. The
 power of the name is most evident when people change names as a result of family
 events (like marriage or adoption). The change in name can precipitate a new way
 of looking at self and shifts the interactions with this person.
- 2. Changes in role designation that are attached to a name also are powerful in changing how we think about a person. When a lesbian or gay couple decide to have a child, the way they create parenting names for themselves is important for how they think about their roles and how they wish to be seen.
- 3. Naming plays an important role in diagnosis and can help people to deal with illness. Naming helps to identify the problem and can help to overcome the anxiety associated with uncertainty. For example, when we can name a disease, we know better what to do or how to approach it.
- 4. Naming in therapy is also helpful in enabling us to move forward with the process of change. Labeling emotions or putting a name to recurring and troubling events in relationships provides a pathway for change.

Naming in all of these different forms serves a number of key functions. Naming brings clarity to complex and troubling matters, it offers a means by which to move from uncertainty to certainty, it helps us to see a phenomenon in a different and more focused way, it provides a kind of "phenomenological address" for the experience that is useful in locating it among similar kinds of experience, and it functions to provide guidelines for social action.

A name assigned to a segment of data functions in similar ways. It helps us to "see" the experience in a more focused way, and it provides the phenomenological address or a means to position the experience in relation to other meaningful events. Naming can also help us to move forward with our thinking about complex phenomena.

Stage II: Creating Categories

Concepts that are created in the process of coding are eventually brought together at a higher level of abstraction known as categories. The formation of categories usually occurs only after there has been enough coding to begin to see broader themes in the data. Although the distinction between a code and a category has been the subject of some confusion (see LaRossa, 2005), the creation of categories is an essential part of the theorizing activity. Categories involve bringing together not only concepts that have similarities, but concepts that are "putatively dissimilar but still allied" (LaRossa, 2005, p. 843). Bringing together similar and dissimilar but allied concepts creates an emphasis on internal continuities and variability. This range of variability within a category is known as identifying the properties of a category, which in turn may have different dimensions. Properties are the characteristics or attributes of a category, whereas dimensions reflect a continuum or a range within a property (Strauss & Corbin, 1998).

For example, in my own research on dual-earner families' perceptions of family time, participants gave a number of indications in the data that they were "investing time for the sake of the children" (concept) or thinking about "spending time" (concept) in order to "create memories" (concept) for the children. These repeated indications gave rise to the category of "banking family time." The idea of "banking" moved these concepts to a higher level of abstraction. There were a number of properties that were associated with this category, including the idea that family time was commodified like money, it had a future orientation like investments, and that there was an expectation of dividends that would accrue over time (see Daly, 2001).

This stage of analysis involves the processes of abstraction and, increasingly, synthesis. The construction of categories serves as the primary means by which we begin to organize and synthesize the data into meaningful groupings. It is also the means by which we begin the process of reducing complex experiential data into more manageable segments.

At this stage of analysis, however, there may be many categories. This is often the stage of greatest complexity in a qualitative research project. It may be useful at this stage to begin to map on a large sheet of paper the kinds of categories and related codes that are emerging. This is sometimes experienced as a valley of despair where there are too many codes, categories, and properties and not enough understanding of how it all fits together. Nevertheless, it is important to stay with the complexity at this stage in order to stay open to a number of theoretical possibilities. Furthermore, as categories begin to take shape, it is important to consider how subsequent interviews can help to saturate our understanding and interpretations of the properties and dimensions associated with these categories.

To Count or Not to Count: How to Respond to the Question!

I have received countless reviews for papers submitted to journals that ask for some indication of the frequency that underlies the presentation of a theme or category. Usually the question is something like, "Wouldn't it be useful information to know how many people were thinking in this way?"

Counting qualitative codes can provide useful information when there is a research design that supports this activity. Specifically, counting makes sense when (a) there is a structured interview that includes the same questions for all participants and (b) the sample is randomly chosen. Both of these components are necessary in order to have a meaningful interpretation of the frequencies.

Counting qualitative codes is not appropriate when researchers follow the principles of emergent design and theoretical sampling. In these studies, the frequency of response is directly related to the frequency of the question. If we are strategically asking the question in some interviews and not others as a way of building theory, then frequency tells us little about the importance of the category. Furthermore, when we use theoretical sampling, we are sampling for kinds of experiences, or specific activities, or lingering puzzles in our theory development. Again, these are inconsistent and uneven activities that readily skew the meaning of frequencies.

Having said all of that, the nomothetic principles underlying a grounded theory approach are implicitly quantitative. One of the reasons why we might create a category is that there are a number of concepts and indicators that are frequently present in the data and that therefore point to its importance and salience. Similarly, the selection of a core category is in part related to the frequency with which it appears in the data. However, assigning numbers to these categories can be misleading. Rather, the focus needs to stay on the way the presented categories reflect the shared and patterned experience of participants.

Stage III: Making Linkages in the Data

In Stages I and II of analysis, the emphasis is on dissecting experience by breaking it down into meaningful parts. When we map these out on a sheet of paper, we may see many parts but have a limited understanding of how they fit together. In order to create a theoretical explanation, however, it is not enough to show what the parts are, it is necessary to build an explanation about how the parts work together. This stage of analysis has been referred to as axial coding, and its purpose is to reassemble data that were fractured during open coding (Strauss & Corbin, 1998).

Axial coding involves looking at relationships within a category and between categories. Category constructions are still somewhat fluid at this stage of analysis. We may have created several categories that are quite similar to one another, and one possibility would be to collapse these together into a more

abstract category that would have different properties and dimensions. This then becomes a process of internal axial coding within the category where the aim is to articulate how component parts contribute to the meaningful coherence of the category. This may include paying attention to a variety of characteristics associated with the category, including process, strategies, causes, contexts, contingencies, consequences, covariances, and conditions (Strauss & Corbin, 1990). The key to building these categories is to identify the core "axis" upon which the category is built. This occurs through comparison with other categories and then making linkages between categories when there is a logic to bring them together under one categorical umbrella.

As categories increasingly take shape through the process of axial coding, it is important to work toward theoretical saturation of each category. A category is saturated when no new information emerges to help deepen the meaning of the category. This is always a matter of degree since it is always possible to rework a category or add new ways of thinking about it or some aspect of it. In practical terms, saturation is "a matter of reaching the point in the research where collecting additional data seems counterproductive; the 'new' that is uncovered does not add that much more to the explanation at the time" (Strauss & Corbin, 1998, p. 136).

Axial coding also occurs among and between the many categories that have been created. The goal here is to examine how these categories are related and connected to one another. Part of this exercise is to scrutinize the extent to which categories can stand on their own as a cluster of meanings and the extent to which they overlap with, or are connected in some way to, other categories. Writing memos about these relationships among categories can serve to reduce the number of categories but also elaborate the relationships that exist among the categories.

For example, in my study of infertile couples who were seeking to adopt, I created several categories that in some way related to the experience of loss: loss of fertility and the biological capacity to reproduce, loss of the anticipated and desired role of being a biological parent, and loss of control over their own individual and family development. The common axis here was loss; rather than treating these as three separate categories, they could be treated as one category that focused on loss with several properties: loss of control over body, loss of social status, and loss of future developmental experience. As these theoretical ideas evolved, they later came to have linkages with the properties of a formal theory of ambiguous loss as put forth by Pauline Boss (1999).

Stage IV: Creating the Theoretical Story Line

To generate a substantive theory is to tell a story about the stories our participants have told us. In this regard, grounded theories are like a second

order story (Daly, 1997) insofar as they involve creating a narrative from the analysis we have conducted. At this stage of the analysis, not only do we put the fragments back together, but we are selective about how to tell the story, which involves highlighting key elements and salient features (i.e., deciding on our main categories); creating a context for the story; and offering explanation of relationships, processes, and experiences. Like the creation of any good story, generating substantive theory involves choices about what to include and what to exclude. Sometimes the most disconcerting part of creating the theoretical story line is deciding what parts of our data to ignore and leave out of the final theoretical account (you can always come back to them for a different type of analysis).

Selective coding is the term coined by Strauss and Corbin (1990, 1998) to describe the process of integrating and refining the theory. Although some qualitative research studies report a listing of main themes, this falls short of the creation of an integrated theory. To theorize is to place an emphasis not only on what the categories are, but on how they are related to one another. At this stage of analysis, abduction can play an important role in generating an explanation that integrates the key categories that have emerged from the data.

Selective coding begins with the identification of the core or central category. This is like finding the narrative spine for the substantive theory. Accordingly, the central category has the power to pull together a number of categories in order to generate the central explanation. Usually the core category is one that stands out from all the other categories. It has the following characteristics (Strauss, 1987):

- It has centrality, and is "at the heart of the analysis" (p. 36).
- All major categories are related to it in some way.
- It appears frequently and is grounded in the data through a variety of indicators and concepts.
- Through the articulation of properties and dimensions, it allows for maximum variability in the data.
- It is sufficiently abstract to subsume many of the interpretive ideas being brought forward, while at the same time having the potential to build toward a more general formal theory.

Sometimes the core category is not present in the existing array of categories and as a result a new one must be formed that can serve to integrate the theory. This may be a modification of an existing category or it may be the creation of a superseding category from existing concepts that helps to provide a theoretical explanation of relationships among various categories.

One of the techniques that may be helpful in trying to find this integrating core is to think imaginatively about metaphors that might be useful in bringing the data together. The essence of a metaphor is to experience and understand one thing in terms of another (Richardson, 2003): What does this phenomenon remind me of? What are similar kinds of stories that might help me see this more clearly? For example, in a study of the challenges associated with having a fertility problem, Sandelowski (1993) used the metaphorical term *mazing* as a core category to integrate her theoretical account of going through medical treatments and pursuing options through reproductive technologies. Like the stressed lab rat that runs through the maze and faces endless dead ends and convoluted corridors, individuals who encounter a fertility problem encounter similar kinds of challenges. Mazing served as a useful metaphor for integrating the many components of the infertility experience.

In a study of father-mother relationships in 40 married couples with young children, Matta and Knudson-Martin (2006) give a good example in their refereed journal article of how to describe succinctly the process of grounded theory analysis. In three short paragraphs they provide examples of how they moved from open to selective coding: (1) open coding: data organized and labeled to reflect what they were hearing, including "father ignores mother influence" or "father encourages mother's feedback and influence"; (2) axial coding was done to identify and define categories—as a result, the way that fathers experienced the mother's influence, or the way that fathers read signals coming from their wives took shape as a category they called "atunement"; (3) in the final stage of selective coding and the development of theory, "responsivity" emerged as a core category that served as the basis of their theorizing about how responsivity arises within couple processes with attention given to the factors that shape these processes (e.g., perceptions of power, work schedules, sensitivity to signals).

How Do We Know a Good Substantive Theory When We See One?

- Linked closely to the data: faithful to everyday reality
- Saturated: Categories have a range of properties that show similarities as well as variability—this might also include reference to the negative case (see Strauss & Corbin, 1998, p. 159)
- Plausible: The theory is plausible in relation to everyday reality—that is, it passes the phenomenological test
- Involves explanation: The account goes beyond description and is labeled as a theoretical explanation

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- Integrated: Category linkages are clear and understandable
- Parsimony: Elegance is achieved through simplicity; the theory is focused and brings clarity out of complexity
- Delimited: Tells a story about some aspect of reality
- Generative and not definitive: Raises new questions and puzzles
- Not overly simplified: Includes contradictions and keeps the "messiness" of life in play (i.e., avoids sanitized theory)
- Available for linkages to formal theory: There is potential to theorize about generic social action

The Diamond Approach: A Theory Development Model for Qualitative Data Analysis

The analytic procedures involved in a grounded theory approach, and indeed in many other approaches to analysis, can be conceptualized as a diamond (see Figure 9.2). At the bottom of the diamond, we begin with a pointed question. Through the process of inquiry, we open many strands of data. As we fracture the data through the process of open coding, we work toward maximizing the number of possibilities or lines of analysis in the data (Stage I). It is at this stage that it is easy to get lost in the complexity of the data. There are too many points of light! Our purpose in these early stages of analysis is to stay open to the many possibilities for how we might code our data. This is consistent with being attentive to the range of possible experience, suspending preconceived ideas, and staying open to many analytical possibilities.

In any project, however, there comes a time when it is too difficult to keep everything in play, and we must begin the process of refinement of data and the creation of categories that can help to narrow the range of analytical possibilities (Stage II). When we cluster data into meaningful categories, we begin the process of data selection and reduction. Although this may happen somewhat unevenly (i.e., categories are created at different times), there is often a phase in the analysis where we actively examine the range of our codes in order to group them to build meaningful categories.

As our categories begin to coalesce, we are also interested in the ways newly formed categories are linked to each other. Using axial coding (Stage III), we work to explore the relationships among the categories. In the same way that Stage I involved fracturing experience into manageable parts, Stage III

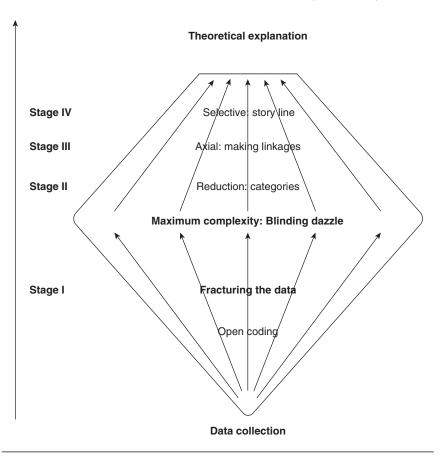


Figure 9.2 The Diamond Model of Analysis

involves looking at how these parts are connected in the everyday unity of experience. In this regard, these linkages are part of a process of reconstructing the lives that were previously deconstructed so that we might understand that experience in a different light.

In Stage IV, the final stage of analysis, we move toward a plateau on the diamond that reduces the complexity of the middle stages while at the same time allowing selected points of light to shine through. This condensed layer is the theoretical explanation that is brought forward. It involves generating the central story line that will provide insight into the phenomenon at hand in a way that is engaging, concise, and reflective of the key aspects of the experience being studied.

Generalizability in Qualitative Research

One of the gold standards of scientific research is maintaining a strong link between the representativeness of samples and the generalizability of the findings. At the same time that we uphold this as a scientific ideal, we recognize that there are a number of problems that occur when we put this into practice: "In the social process that starts with the creation of a representative sample and ends with the generalizability of findings, the researchers' activity is constantly driven by biases and organizational obstacles" (Gobo, 2004, p.436). In qualitative research, there is a broad recognition of these biases and obstacles. As a result, representative samples are not often attempted and generalizability is frequently dismissed as an unachievable goal. In the tradition of qualitative research, the approach to generalizability claims has been cautious.

Straus and Corbin (1998), for example, argue that the merit of a substantive theory is that it has explanatory power in relation to given situations such as stigma or chronic illness within the bounds of the populations from which it was derived. This is a constrained form of generalization that has been referred to as a kind of "internal generalization." Gobo (2004) raises this important question: "Why do we bother to invest so much time and energy into qualitative research unless there is some applicability of the findings beyond these internal applications?" The answer lies in thinking about a new concept of generalizability in qualitative research:

- An emphasis on social representativeness (Gobo, 2004) rather than statistical representativeness. This involves generating inferences about the nature of the phenomenon being studied, rather than its prevalence or statistical distribution (Lewis & Ritchie, 2003). Accordingly, it encompasses diversity by identifying and displaying different perspectives, behaviors, needs, and so on.
- Generalizability is analytic rather than probabilistic, and its strength lies in the
 application of the results: that is, the extent to which the data illuminate the
 social and individual processes of new settings (Gilgun, 2001, 2005b). Are
 the findings useful when applied to understanding new settings?
- Its purpose is to identify the regularities of a phenomenon or the general structures of experience. It contributes to an appreciation of generic concepts (Prus, 1987; see also Chapter 3 in this volume). These are analytic outcomes that help us to understand better the fundamental principles of social action and human behavior
- It is concerned with the "transferability" of results (Lincoln & Guba, 1985). By
 describing fully the processes and conditions under which the data were generated, decisions can be made by people in other similar situations as to whether
 the descriptions or explanations are an adequate fit to that new situation.

Analysis in qualitative research comes in many different forms. We started this chapter with a classic definition of analysis that focused on the "explicit rendering" of the patterns found among a group of participants. Much of

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what we do in qualitative inquiry fits within this definition. Yet in the work of conducting our own analytic work, it is important to think about the ways in which analytical decisions occur throughout all stages of the research, the ways our participants directly influence and shape the course of analysis, and the way our chosen methodological approaches give a unique character to the analysis endeavor.