

11



Methods of Analysis

Methods exist that can make the interview analysis more amenable than as pictured in the reply to the 1,000-page question. They can be used to organize the interview texts, to condense the meanings into forms that can be presented in a relatively short space, and to work out implicit meanings of what was said. Five main approaches to interview analysis will be outlined: categorization of meaning, condensation of meaning, structuring of meaning through narratives, interpretation of meaning, and ad hoc methods for generating meaning.

In a chapter on methods of analysis some readers may, however, expect to find the magical tool for finally uncovering the treasures of meaning hidden in the many pages of opaque interview transcripts. The following overview of methods will disappoint them—no main roads to the meanings of the interviews are given here. The techniques of analysis are tools, useful for some purposes, relevant for some types of interviews, and suited for some researchers. The central task of interview analysis rests, however, with the researcher, with the thematic questions he or she has asked from the start of the investigation and followed up through designing, interviewing, and transcribing.

Steps of Analysis

The purpose of the qualitative research interview has been depicted as the description and interpretation of themes in the subjects' lived world. A continuum exists between description and interpretation.

Box 11.1 shows six possible steps of analysis. They do not necessarily presuppose each other chronologically or logically (see Giorgi [1992] and Wolcott [1994] for further treatment of the relation of description and interpretation). The first three steps of description, discover, and interpretation during the interview were discussed earlier (Chapter 8, Interview Quality). In this chapter I treat the fourth step of analyzing the transcribed interview, then return to re-interviewing and action in relation to the discussion of validation as communication and action (Chapter 13, Communicative Validity, and Pragmatic Validity).

Approaches to Interview Analysis

Until recently, interview researchers had to rely on the individual techniques they could come up with: developing their own hunches or by chance finding some suggestions in the scattered qualitative literature. Analysis took place through listening to repeated replaying of the tapes, or by cutting and pasting selections from the transcribed pages. The analyses more often terminated because of time limits or exhaustion, rather than with a feeling of having analyzed the material sufficiently to have worked out its main structures and meanings; recall the final phases of the emotional hardships of interview inquiries depicted earlier (see Box 5.1 in Chapter 5).

During the past decade this state of affairs has changed. There are now several books giving overviews of the different methods of qualitative analysis (Miles & Huberman, 1994; Silverman, 1993; Tesch, 1990; Wolcott, 1994). I will differentiate five main approaches to qualitative analysis and use the term *analysis* for these five approaches in general, and reserve the term *interpretation* for the one mode of analysis involving a more in-depth interpretation.

Figure 11.1 provides a graphic overview of the size and form of the outcome of five main approaches to the analysis of the meanings of interviews. As is evident from the dashes indicating the amount of text, in all approaches except interpretation the *outcome* of the analysis requires far less space than the original interview text. In contrast to the text reduction of the other approaches, interpretation will often involve a text expansion, with the outcome formulated in far more

Box 11.1

Six Steps of Analysis

A first step is when *subjects describe* their lived world during the interview. They spontaneously tell what they experience, feel, and do in relation to a topic. There is little interpretation or explanation from either the interviewees or the interviewer.

A second step would be that the *subjects themselves discover* new relationships during the interview, see new meanings in what they experience and do. For example, a pupil, describing the effects of grading, comes to think of how the grades further a destructive competition among pupils. The interviewees themselves start to see new connections in their life worlds on the basis of their spontaneous descriptions, free of interpretation by the interviewer.

In a third step, the *interviewer, during the interview, condenses and interprets* the meaning of what the interviewee describes, and "sends" the meaning back. The interviewee then has the opportunity to reply, for example, "I did not mean that" or "That was precisely what I was trying to say" or "No, that was not quite what I felt. It was more like . . ." This dialogue ideally continues till there is only one possible interpretation left, or it is established that the subject has multiple, and possibly contradictory, understandings of a theme. This form of interviewing implies an ongoing "on-the-line interpretation" with the possibility of an "on-the-spot" confirmation or disconfirmation of the interviewer's interpretations. The result can then be a "self-correcting" interview.

In a fourth step, the *transcribed interview is interpreted by the interviewer*, either alone or with other researchers.

(continued)

Box 11.1 Continued

Three parts of this analysis may be discerned; first, *structuring* the often large and complex interview material for analysis. This is usually done today by transcription and by programs for computer analysis of qualitative material. The next part consists of a *clarification* of the material, making it amenable to analysis; for example, by eliminating superfluous material such as digressions and repetitions, distinguishing between the essential and the non-essential. What is essential or non-essential again depends on the purpose of the study and its theoretical presuppositions. The *analysis proper* involves developing the meanings of the interviews, bringing the subjects' own understanding into the light as well as providing new perspectives from the researcher on the phenomena. Five main approaches to the analysis of meaning are condensation, categorization, narrative structuring, interpretation, and ad hoc methods.

A fifth step would be a *re-interview*. When the researcher has analyzed and interpreted the completed interviews, he or she may give the interpretations back to the subjects. In a continuation of a "self-correcting" interview, the subjects get an opportunity to comment on the interviewer's interpretations as well as to elaborate on their own original statements.

A possible sixth step would be to extend the continuum of description and interpretation to include *action*, in that subjects begin to act from new insights they have gained during their interview. The research interview may in such cases approximate a therapeutic interview. The changes can also be brought about by actions in a larger social setting such as action research, where the researcher and the subjects together act on the basis of the knowledge produced in the interviews.

Approaches to Analysis of Meaning	Interview Text	Outcome of Analysis
Condensation:	----- ----- ----- ----- -----	----- -----
Categorization:	----- ----- ----- ----- -----	+/- 1 - 2 - 3 - 4 - 5 - 6 - 7
Narrative:	----- ----- ----- ----- -----	Start → Goal Enemies > Hero < Helpers ----- -----
Interpretation:	----- ----- ----- ----- -----	----- ----- ----- ----- -----
Ad hoc:	----- ----- ----- ----- -----	+/- 1 - 2 - 3 - 4 - 5 - 6 - 7 □ → □ ----- -----

Figure 11.1. Five Approaches to Interview Analysis

words than the interpreted statements; for example, the interpretation of a poem by a literary critic.

The *form* of the results will mainly be in words in meaning condensation, interpretation, and narrative analyses, possibly with some figures for narrative structuring. The outcome of categorization is in numbers, which can be subjected to statistical analysis. The eclectic ad hoc analysis may involve words and figures as well as numbers. An overview of the five approaches will be given before outlining them each in more detail.

Meaning condensation entails an abridgement of the meanings expressed by the interviewees into shorter formulations. Long statements are compressed into briefer statements in which the main sense of what is said is rephrased in a few words. Meaning condensation thus involves a reduction of large interview texts into briefer, more succinct formulations.

Meaning categorization implies that the interview is coded into categories. Long statements are reduced to simple categories such as “+” or “-,” indicating occurrence and non-occurrence of a phenomenon; or to a single number on a scale of 1 to 5, for example, to indicate the strength of a phenomenon. Categorization can thus reduce and structure a large text into a few tables and figures. The categories can be developed in advance or they can arise ad hoc during the analysis; they may be taken from theory or from the vernacular, as well as from the interviewees’ own idioms.

The present outline of five main methodical approaches to qualitative analysis is in itself a rough categorization of a qualitative diversity of methods of analysis. The perspective here is on how the different methods generate meaning; other perspectives would lead to other categorizations. Thus a focus on whether the analysis leads to qualitative or quantitative data, or whether the analysis is linguistic or psychological, would lead to other categorizations of methodical approaches to interview analysis.

Narrative structuring entails the temporal and social organization of a text to bring out its meaning. It focuses on the stories told during an interview and works out their structures and their plots. If there are no stories told spontaneously, a narrative analysis may attempt to create a coherent story out of the many happenings reported throughout an interview. As with meaning condensation, narrative analysis

will generally stay within the vernacular. Structuring through narratives will usually reduce the interview text; it may, however, also expand it by developing the potentialities of meaning in a simple interview story into more elaborate narratives.

Meaning interpretation goes beyond a structuring of the manifest meanings of a text to deeper and more or less speculative interpretations of the text. Examples of meaning interpretation are found in the humanities, such as in a critic’s interpretations of a film or a play, and in psychoanalytical interpretations of patients’ dreams. In contrast to the decontextualization of statements by categorization, interpretation recontextualizes the statements within broader frames of reference. The context for interpretation of a statement may, for example, be provided by the entire interview or by a theory. In contrast to the text reduction techniques of categorization and condensation, interpretations likely lead to a text expansion, such as in the preceding interpretations of Hamlet’s interview (Chapter 8, Hamlet’s Interview) and of the 1,000-page question (Chapter 10).

Generating meaning through ad hoc methods is an eclectic approach. A variety of commonsense approaches to the interview text, as well as sophisticated textual or quantitative methods, can be used to bring out the meanings of different parts of the material. The outcome of this meaning generation can be in words, in numbers, in figures and flow charts, and in their combinations.

These five approaches to interview analysis will now be exemplified, while more extensive treatment of the many techniques are found in the literature mentioned above. Meaning condensation will be illustrated by a phenomenological analysis of the interview reported by Giorgi and meaning categorizing by the analysis of the interviews from the grade study. Narrative analysis and ad hoc analysis will be depicted briefly and literature for more extensive treatments referred to. Interpretation of meaning is also described only briefly here: It will be the main topic of Chapter 12.

Meaning Condensation

Giorgi applied a phenomenologically based meaning condensation to the interview on learning reported earlier (Chapter 2, A Research

Interview on Learning). The thematic purpose was “to try to discover exactly what constitutes learning for ordinary people going about their everyday activities and how the learning is accomplished” (Giorgi, 1975, p. 84). The methodological aim of the study was to use phenomenology in the service of qualitative research: “We are interested in demonstrating how rigor and discipline can be applied without necessarily transforming data into quantitative expressions, although the latter has its place. The main point of the study is to demonstrate how one deals systematically with data that remain expressed in terms of ordinary language” (pp. 95-96).

Table 11.1 presents the condensation of the meanings of the first passages from the interview on learning. The “natural meaning units” of the subject’s answers are given in the left-hand column and their central themes are presented in the right-hand column. Five steps are involved in this empirical phenomenological analysis: First, the whole interview is read through to get a sense of the whole. Then, the natural “meaning units” as expressed by the subjects are determined by the researcher. Third, the theme that dominates a natural meaning unit is stated as simply as possible. The researcher here attempts to read the subject’s answers without prejudice and to thematize the statements from her viewpoint as understood by the researcher.

The fourth step consists of interrogating the meaning units in terms of the specific purpose of the study. The main questions of the study were “What is learning?” and “How was learning accomplished?” The themes of the meaning units were addressed with respect to such questions as, “What does this statement tell me about learning?” In the fifth step, the essential, nonredundant themes of the entire interview were tied together into a descriptive statement. The method thus involves a condensation of the expressed meanings into more and more essential meanings of the structure and style of learning.

Table 11.2 depicts the essential description of the style of learning obtained by answering the researcher’s question of “How did learning take place?” The essential description shows structures of learning in everyday situations. These structures were further discussed by Giorgi in relation to the standard psychological theories of learning of the time, which had long neglected the interpersonal context of learning—that learning is a radically inter-human phenomenon.

TABLE 11.1 The Natural Meaning Units and Their Central Themes

<i>Natural Unit</i>	<i>Central Theme</i>
1. The first thing that comes to mind is what I learned about interior decorating from Myrtis. She was telling me about the way you see things. Her view of looking at different rooms has been altered. She told me that when you come into a room you don't usually notice how many vertical and horizontal lines there are, at least consciously, you don't notice. And yet, if you were to take someone who knows what's going on in the field of interior decorating, they would intuitively feel there were the right number of vertical and horizontal lines.	1. Role of vertical and horizontal lines in interior-decorating.
2. So, I went home, and I started looking at the lines in our living room, and I counted the number of horizontal and vertical lines, many of which I had never realized were lines before. A beam . . . I had never really thought of that as vertical before, just as a protrusion from the wall. (Laughs).	2. S looks for vertical and horizontal lines in her home.
3. I found out what was wrong with our living room design: many, too many, horizontal lines and not enough vertical. So I started trying to move things around and change the way it looked. I did this by moving several pieces of furniture and taking out several knick-knacks, de-emphasizing certain lines, and . . . it really looked differently to me.	3. S found too many horizontal lines in living room and succeeded in changing its appearance.
4. It's interesting because my husband came home several hours later and I said “Look at the living room; it's all different.” Not knowing this, that I had picked up, he didn't look at it in the same way I did. He saw things were moved, but he wasn't able to verbalize that there was a de-emphasis on the horizontal lines and more of an emphasis on the vertical. So I felt I learned something.	4. Husband confirms difference not knowing why.

SOURCE: From Giorgi (1975).

TABLE 11.2 Essential Description of Style of Learning

Learning for S happened when she obtained from a significant other knowledge and concrete demonstrations of this knowledge that related to a problem that bothered her for a long time. When S found she could apply this knowledge to her own situation in her own way, taking into account all the contingencies that the new situation offered, she felt that learning had been achieved. Thus S learned by being attentive to another, then applying for herself that knowledge which she received, with approval from a different significant other.

SOURCE: From Giorgi (1975).

Giorgi also outlines how his empirical phenomenological method relates to phenomenological philosophy, in particular as this was developed by Merleau-Ponty (Chapter 3, Phenomenological Description). This concerns fidelity to the phenomena, the primacy of the life world, the descriptive approach, expressing the situation from the viewpoint of the subject, treating the situation as the unit of research, engaged researchers, and the search for meaning. There is here a unity of content and method, both the interview method and the conception of learning were based on a phenomenological understanding of the phenomenon investigated as an intentional meaningful activity in the daily life of the subject.

In conclusion, this empirical phenomenological method may serve to analyze extensive and often complex interview texts by looking for natural meaning units and explicating their main themes. (For further developments and applications of the method see Fischer & Wertz, 1979; Giorgi, 1985.) It should be noted that meaning condensation is not limited to a phenomenological approach and has been applied in other qualitative studies (see Mayring, 1983; Tesch, 1990).

Meaning Categorization

The analysis of the interviews on grades will be used to illustrate the procedure of categorization. The 30 pupil interviews were categorized in order to test the hypothesis that using grades to measure learning affects both learning and social relations in school. The transcriptions of the 30 interviews came to 762 pages. Based on educational literature and pilot interviews, a grade perspective on school

Main dimensions

Subcategories

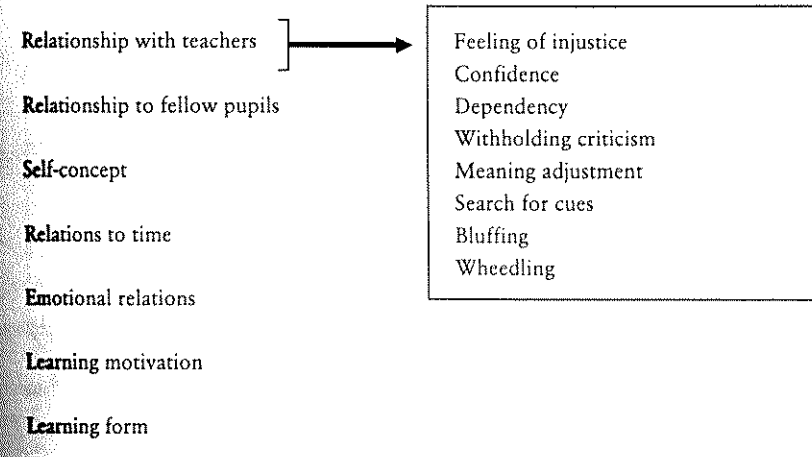


Figure 11.2. Dimensions and Categories of the Grading Perspective

learning was specified to seven main dimensions, which were themselves differentiated into subcategories.

In Figure 11.2 the seven dimensions of the grade perspective on learning are shown in the left-hand column, and the eight subcategories of one of these dimensions—Relationship With the Teacher—in the right-hand column. For the other six dimensions, corresponding subcategories with content appropriate to each dimension were also made (not included in Fig. 11.2); in all, this came to 42 categories. The categories were taken from previous studies of grading and from pilot interviews in this project. Each category was defined: for example, *Bluffing*—the pupil attempts to give the impression that he knows more than he knows, and with the purpose of obtaining better grades, for example by raising his hand eagerly (cognitive, related to subject matter, acceptable). *Wheedling*—the pupil attempts to win the sympathy of the teacher with the purpose of obtaining better grades (emotional, often unrelated to the subject matter, unacceptable).

Every interview was coded as a whole for each of the 42 categories of attitudes and behaviors in relation to school grades. The categorizations were done as close to the pupil's self-understanding as possible, so that in principle the pupils themselves would accept the

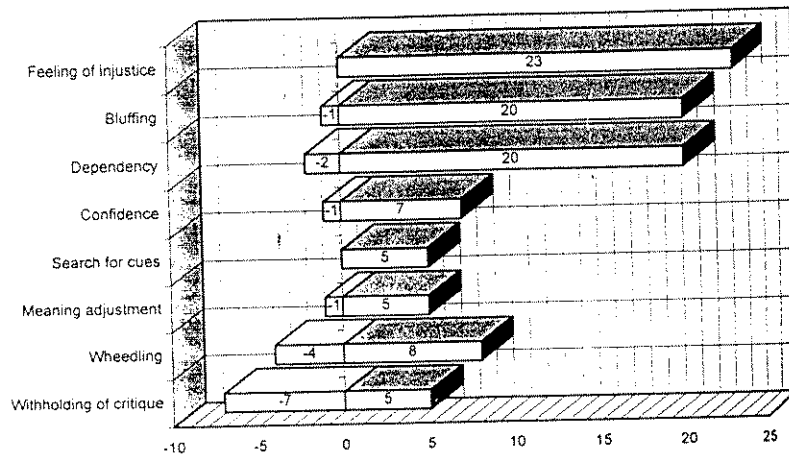


Figure 11.3. Influence of Grades on Pupil's Relationship to Teacher
 NOTE: Numbers to the right show how many of the 30 pupils confirmed occurrences of a grading attitude and behavior; negative numbers to the left show how many disconfirmed a grading attitude and behavior. As several pupils had no, or vague, statements regarding a subcategory, the sum of direct confirmations and disconfirmations is less than 30.

categorizations of their statements. The interviews were categorized independently by two coders and their codings were combined. By divergences, a dialogue solution was attempted. In cases where the two coders did not reach a consensus, a third coder was summoned.

Figure 11.3 depicts how many of the 30 pupils confirmed or disconfirmed the eight categories of the dimension—Relationship With the Teacher. The results in general confirmed the hypothesis that grades influence pupils' relationships with their teachers. This varied from 23 of the 30 pupils confirming, and none disconfirming, a feeling of injustice about their grades; to 5 confirming and 7 disconfirming a withholding of critique of their teachers for fear of repercussions on their grades. Similar degrees of support for the grade hypothesis were found for the six other dimensions of the grade perspective. The interviews showed only a weak support for the hypothesis of an increased grade perspective after the introduction of a grade-based, restricted admission to college introduced the year before. In addition to this form of categorization, the grade interviews were also subjected to deeper qualitative interpretations, some examples of which will be discussed in Chapter 12.

The categorization of the meanings of the pupils' statements served several purposes: (a) The categorizations structured the extensive and complex interviews and gave an overview of the occurrence of grading behaviors among the 30 pupils interviewed. Thus in seven tables, as shown in Figure 11.3, the main results of 762 pages of interview transcription regarding the extent of grading attitudes and behaviors could be reported. (b) The categorization made it possible to test the hypothesis that grades influence learning. (c) The quantification of grading behaviors, such as those shown in Figure 11.3, gives readers a background for judging how typical the quotes used in the accompanying qualitative analyses were for the interview material as a whole. (d) The categorization made it possible to investigate differences in grading behavior for different groups among the 30 pupils, such as boys versus girls and pupils with high versus low grades. In this study no significant differences were found. (e) Quantification also made comparisons to other investigations on the effects of grades possible. (f) The categorization could itself be checked for coder reliability and made some checks for interviewer reliability possible; this will be discussed later (see Control of Analysis, below).

The categorization of meanings has long been used for analyzing qualitative material. Categorization is in line with, but not limited to, a positivist emphasis on quantification of facts in the social sciences. Several techniques were developed in the content analysis tradition during World War II to analyze enemy propaganda. The different techniques will not be reviewed here (see, e.g., Miles & Huberman, 1994; Tesch, 1990).

Meaning Structuring Through Narratives

An interview analysis can be treated as a form of narration, as a continuation of the story told by the interviewee. A narrative analysis of what was said leads to a new story to be told, a story developing the themes of the original interview. The analysis may also be a condensation or a reconstruction of the many tales told by the different subjects into a richer, more condensed and coherent story than the scattered stories of the separate interviewees.

The interview used to demonstrate meaning condensation (see Meaning Condensation, above, & Chapter 2, A Research Interview on Learning) started out with a subject's spontaneous story about how she learned the difference between horizontal and vertical lines when decorating a room. Giorgi used the content of the story to develop essential meanings of learning, and he did not analyze the story as narrative.

Mishler's book *Research Interviewing—Context and Narrative* (1986) is a pioneering study of the use of narratives in interview research. He outlines the many interpretative possibilities of treating interviews as narratives, emphasizing the temporal, the social, and the meaning structures of narratives. A narrative contains a *temporal* sequence, a patterning of happenings. It has a *social* dimension, someone is telling something to someone. And it has a *meaning*, a plot giving the story a point and a unity. One of the main social functions of narratives is to maintain social ties: The narratives of a group contribute to constituting the group's identity and to holding the group together (see also Polkinghorne, 1988).

The narrative dimension of interviews is often overlooked. Mishler recounts how, in his study of doctor-patient interaction, there was a long story from a patient about his financial situation. Mishler had initially perceived it as a long digression and disregarded it in the first analysis of the interview. Then, through a closer look from a narrative perspective, the story came to yield essential insight into the nature of doctor-patient interactions. The verbatim and the narrative transcriptions of Leonora's story about her puppy (Chapter 9, Transcription Reliability and Validity, and Table 9.2) were taken from an article by Mishler (1991) in which he discusses the narrative structure of the story and calls attention to the need for linguistic competence to discover and develop narrative structures.

The interview researcher may pay attention to narratives during both interviewing and analyzing, as well as at the reporting stage. When spontaneous stories appear during interviews, the interviewer can encourage the subjects to let their stories unfold. The interviewer may also help the subjects to produce a coherent story, which can be illustrated with an analogy: A small child comes running to his parent, trying to tell about some dramatic event it has experienced, but is too excited by the event itself and needs assistance from someone to create

an intelligible story with a sequence understandable to others about what happened. Furthermore, the interviewer can work toward narrative forms during the interview, for example by directly asking for stories and trying together with the interviewee to structure the different happenings recounted into coherent stories.

An author starting on a novel may have a main plot in mind that will be developed on the way. An interview inquiry, too, may be seen as leading to a story the researcher wants to tell, where the key points he or she want to relate to the readers are kept in mind from the start. In both cases the characters may take on their own life during the writing, developing along lines other than those intended by the author, following a structural logic of their own. The result may be a good story, providing new convincing insights and opening new vistas for understanding the phenomena investigated.

During the analysis the researcher may alternate between being a "narrative-finder"—looking for narratives contained in the interviews, and being a "narrative-creator"—molding the many different happenings into coherent stories. In both cases the researcher can employ the concepts and the tools worked out in the humanities for the analysis of narratives, such as the actant model developed by Propp on the basis of Russian fairy tales and Labov's narrative model (see Cortazzi, 1993; Jensen, 1989).

Meaning Interpretation

Although *analysis* and *interpretation* have been used interchangeably throughout this book, I here reserve the latter term for more extensive and deeper interpretations of meaning, inspired by hermeneutical philosophy (Chapter 3, Hermeneutical Interpretation). The researcher has a perspective on what is investigated and interprets the interviews from this perspective. The interpreter goes beyond what is directly said to work out structures and relations of meaning not immediately apparent in a text. This requires a certain distance from what is said, which is achieved by a methodical or theoretical stance, recontextualizing what is said in a specific conceptual context.

The influence of different conceptual frameworks during interpretation is illustrated in Schefflen's article "Susan Smiled: On Explana-

tions in Family Therapy" (1978). It is cast in a story form with a group of therapists watching and commenting on a therapy session. At one point the daughter, Susan, had smiled in an enigmatic way. The discussion among the observers about the meaning of this nonverbal statement, leading to six different interpretations, can also highlight issues of interview interpretation.

One therapist suggested that the smile was sarcastic, thus invoking an expressional paradigm, where a person's actions are attributed to something within the person. Then one member of the group offered a second interpretation by pointing out that Susan had smiled just after her father had turned to her, held out his hands, and said "I think Susan loves us. We certainly love her." The smile is now seen as a response to her father's statement. A further observation led to a third interpretation: After Susan had smiled, her mother turned to her and said: "You never appreciate what we try to do for you." The smile was now interpreted as a provocation, as a stimulus for the mother's reprimand.

In these three explanations Susan's smile was interpreted as an expression, as a response, and as a stimulus. The first focused on Susan in isolation, the second brought up the preceding context and the father-daughter relationship, and the third included the succeeding context and the mother-daughter relationship. A fourth interpretation followed from a closer focus on the interpersonal interaction, noticing that the three members of the family often acted and reacted to each other by withdrawal: When Susan smiled her father turned his face away and fell silent, and when the mother began her reprimand Susan reacted in a similar way. A fifth interpretation followed when the tape was played back and the therapists looked for incidents similar to the sequence in which Susan smiled. There had been two previous exchanges where the father approached, Susan smiled, and the mother reprimanded. This indicated a programmed interaction in this family, the actors following an unwritten script and interacting according to a preexisting scenario. In this interpretation, moving from an individual-centered to a cultural interpretation, Susan smiled because this was the part she was expected to play in the family drama. A sixth interpretation argued that although Susan's smile was a response to her father's approach, it was not a response in kind. In Bateson's language, the smile was meta to the father's statement, her metacommunication derailed her father's offer of involvement.

When discussing the six therapists' interpretations of Susan's smile, Schefflen (1978) does not side with any one model: "These are usually presented as opposing truths in different doctrinal schools, but they are all valid from one point of view or another. And, accordingly, they are all tactically useful at some point or another" (p. 59). The various modes of explanation can be used deliberately as tactics throughout a therapy, can be tactically employed to alter habitual tendencies to deny, ignore, project, and blame: "In the course of family therapy our clients can learn multiple approaches from us and end up with a more flexible and comprehensive strategy for viewing and making sense of their experiences" (Schefflen, 1978, p. 68). The issues of multiple interpretations raised by this case will be addressed again in Chapter 12 and the pragmatic approach to validating interpretations according to their usefulness in Chapter 13.

Interpretations of meaning are sometimes steeped in a mistrust toward the meanings directly expressed. A critical distance in interpretation is found in the form of a "hermeneutics of suspicion" to what a person directly says and a text manifestly expresses, interpreting the meaning to be something else than is directly said, being suspicious of some hidden intention or plot. Thus Hamlet's interview was interpreted earlier as an expression of a pervasive distrust of the words and the acts of others, leading to conversations of "per indirections find directions out" (Chapter 8, Hamlet's Interview). In the social sciences a hermeneutics of suspicion is pronounced in psychoanalysis and Marxism, where the interpreter looks for meanings behind or beneath what is directly expressed—in psychoanalysis as manifestations of unconscious forces, and in Marxism as manifestations of an ideology concealing the basic contradictions of the social and economical forces at work.

Ad Hoc Meaning Generation

The most frequent form of interview analysis is probably an ad hoc use of different approaches and techniques for meaning generation. In contrast to the above condensation and categorization of meanings, in this case no standard method is used for analyzing the whole of the interview material. There is instead a free interplay of techniques during the analysis. Thus the researcher may read the interviews

through and get an overall impression, then go back to specific passages, perhaps make some quantifications like counting statements indicating different attitudes to a phenomenon, make deeper interpretations of specific statements, cast parts of the interview into a narrative, work out metaphors to capture the material, attempt a visualization of the findings in flow diagrams, and so on. Such tactics of meaning generation may, for interviews lacking an overall sense at the first reading, bring out connections and structures significant to the research project.

Thirteen such tactics for generating meaning in qualitative texts are discussed and exemplified by Miles and Huberman (1994). They are arranged roughly from the descriptive to the explanatory, and from the concrete to the more conceptual and abstract:

Noting patterns, themes (1), *seeing plausibility* (2), and *clustering* (3) help the analyst see "what goes with what." *Making metaphors* (4), like the preceding three tactics, is a way to achieve more integration among diverse pieces of data. *Counting* (5) is also a familiar way to see "what's there."

Making contrasts/comparisons (6) is a pervasive tactic that sharpens understanding. Differentiation sometimes is needed, too, as in *partitioning variables* (7).

We also need tactics for seeing things and their relationships more abstractly. These include *subsuming particulars under the general* (8); *factoring* (9), an analogue to a familiar quantitative technique; *noting relations between variables* (10); and *finding intervening variables* (11).

Finally, how can we systematically assemble a coherent understandable of data? The tactics discussed are *building a logical chain of evidence* (12) and *making conceptual/theoretical coherence* (13). (pp. 245-246)

During the analysis of the grade interviews, several ad hoc techniques were tried out, and one example concerning grades and talkativity will be taken up in Chapter 12.

Issues of Analysis

Some principal issues of analysis will now be raised: the pervasiveness of interpretation, quantitative and qualitative analysis, and theoretical presuppositions.

The Pervasiveness of Interpretation. Analysis is not an isolated stage, but permeates an entire interview inquiry. For the six steps of analysis in Box 11.1, a continuity of description and interpretation was outlined for an entire investigation. The extensiveness of the interpretation was also emphasized for the seven stages of an interview design (Chapter 5) as well as in answering the 1,000-page question (Chapter 10). Meaning clarification and interpretation were suggested throughout the interview situation, and it was postulated that the ideal interview would be interpreted by the end of the interaction (Chapter 8). The transformation from oral speech to written text was depicted as a translation and an interpretation, illustrated by the different transcriptions of the story of Leona's puppy (Chapter 9, Transcription Reliability and Validity, and Table 9.2). The role of interpretation will continue during verification and reporting of the interviews (Chapters 13 & 14). A recognition of the pervasiveness of interpretation throughout an entire interview inquiry may counteract a common overemphasis on methods of analysis as *the* one way to find the meaning of interviews.

Quantitative and Qualitative Analysis. An ideological dichotomization of quantitative and qualitative methods in the social sciences was discussed earlier (Chapter 4, Qualitative and Quantitative Research). During the concrete analyses of the grading interviews, multiple interactions of quantitative and qualitative approaches took place. Three instances will be mentioned: qualitative development of categories for quantification, qualitative differentiation of categories through quantification, and the problem of quantification of a complex phenomenon as denials.

It was a presupposition for the quantification of the grading behaviors that the categories had been developed qualitatively on the basis of previous literature and pilot interviews. The requirement that the interview statements be coded in an "either/or" manner required precise definitions of the categories. When testing the categories in pilot interviews, this led to further qualitative differentiations of grading behaviors, such as dividing "competition" into refined categories with clearly different meanings for the pupils, such as "comparison oriented," "grade jealousy," "sportsmanlike competition," and "destructive competition." This quantitative scoring procedure

presupposed a qualitative development of the categories, and it contributed to a qualitative differentiation of these categories. The very development and differentiation of categories is mainly a qualitative endeavor, and the creation of appropriate categories may be just as significant a contribution of knowledge as the number of observations made for the different categories.

From a purely quantitative viewpoint, one might expect that the more frequently a form of grading behavior was confirmed or disconfirmed the more certain the categorization would be. In some cases, however, problems with such a quantitative approach to coding could arise, such as with the interpretation of many denials of competition as possibly meaning a confirmation (Chapter 9, Transcribing Interviews). Following the categorization procedure based on the level of the pupil's self-understanding, this statement was coded as indicating non-occurrence of competition. With a deeper interpretation, leading to a confirmation of competition, this example points to a principal limitation of the quantification of qualitative interview material. It would be foolhardy to give an exact quantitative measure of how many "nos" are needed before they can come to mean "yes." Deciding when a quantitative increase in negation turns around and becomes a confirmation requires a critical qualitative interpretation of the linguistic style, the pauses, and the intonation of the statement. For such complex, ambiguous, and contradictory interview statements an exact quantitative scoring is in principle impossible; it is not feasible to give an exact quantitative criterion of how many denials are required before the denials become an involuntary confirmation.

Theoretical Presuppositions. The theoretical basis of an investigation provides the context for making decisions about how interviews will be analyzed. Different techniques of analysis are means for answering different thematic questions. The analyst's theoretical conceptions of the subject matter influence how he or she analyzes the interviews. The analysis of the interviews may be part of generating a theory, as well as an application or a testing of theories.

In the grounded theory approach developed by Glaser and Strauss, there is an attempt through the analysis of the data to develop a theoretical interpretation of what is seen and heard (Strauss & Corbin,

1990). The field studies here involve observations as well as informal or formal interviews. There is a continual coding and recoding of the observations, as the researcher's insight grows during an investigation, working toward an empirically grounded theory.

In the present discussion of design the example of teasing was used to illustrate how different theoretical conceptions would lead to different forms of questioning (Chapter 5, Designing), a issue taken up again with the demonstration interview about grades (Chapter 7, An Interview About Grades). Freudian, Rogerian, and Skinnerian approaches to the understanding of such phenomena as teasing and grades will likewise lead to different forms of analysis of the interview texts, emphasizing different aspects and contexts of the phenomena.

On a metatheoretical level there are contrasting conceptions of the meanings to be reported through analysis, such as with the postmodern, hermeneutical, phenomenological, and dialectical perspectives to interview research discussed in Chapter 3. This includes meaning finding versus meaning construction, as indicated by the miner and the traveler metaphors of interview research. In the miner approach, the analyst uncovers and purifies the meanings more or less buried in the interviews. In the traveler approach, the analyst co-creates with the subjects the meanings he or she reports, and through interpretation constructs elaborate stories.

Control of Analysis

Control is a key issue for the analysis of large amounts of complex interview material. In contrast to the readers of a critic's analysis of a poem, the readers of an interview report will not have access to the tape recordings and the often many hundreds of pages of interviews that the researcher's interpretations are based on. Nor do the interview texts pose the same amount of resistance to the interpreter as a patient would do in a therapy situation. The reader of an interview study has to depend on the researcher's selection and contextualization of interview statements. Two approaches to control the interview analysis will be mentioned here: the use of multiple interpreters and the explication of procedures.

Multiple Interpreters. The analysis of interviews is often undertaken by the researcher alone, and the reader is left with little material for evaluating the influence of the researcher's perspective on the outcome of the analysis. By using several interpreters for the same interviews, a certain control of haphazard or biased subjectivity in analysis is possible. Several coders are frequently used for categorization and could be used more often for interpretations of the deeper meanings of the interviews.

When categorizing the interviews in the grade study, both a dialogical and an arithmetical approach to intersubjective agreement were included (Chapter 4, Objectivity in Qualitative Research). *Coder reliability* was checked on a sample of the interviews; here the two coders independently had the same scorings for 39% of the instances and different scorings for 61%. For the latter, the two coders reached agreement through discussion for 60%, and for the remaining 1% a third coder was called in to have the final word. The intersubjective agreement obtained by the categorizations indicates that other coders, using the same coding procedure, would be likely to arrive at the same categorizations of the interviews. A further check was made to see if I, the project leader, would more often get my own categorizations accepted instead of those of the paid student assistants. This was found not to be the case.

Furthermore, the categorization made some checks on *interviewer reliability* possible—whether the pupils' descriptions of the effects of grading were influenced differently by the four interviewers in the study. A significant difference was found between two interviewers on amount of grading behaviors reported. A check revealed that one had followed the interview guide very conscientiously and taken care to have the pupils cover the many themes in the interview guide, whereas the other had more often pursued the many interesting leads that came up during the interviews.

When different meanings are found by different analysts, they may be worked together into a dialogue leading to an intersubjective agreement. Or the different meanings found can be reported side by side, accompanied by the reasons for the divergent interpretations, such as by the majority and minority votums in official committees. The use of several analysts may not only serve as a control of a random or prejudiced subjectivity, it may also lead to an enrichment of the

analysis by including multiple perspectives. The discussions about the different interpretations can lead to a conceptual clarification and refinement of the issues in question, such as in the interpretation of Susan's smile (see Meaning Interpretation, above).

Explication of Procedures. An alternative or a supplement to a multiple interpreter control of analysis is that the researcher present examples of the material used for the interpretations and explicitly outline the different steps of the analysis process. In Giorgi's phenomenological analysis, the researcher's "cards" were put on the table for inspection. The readers could then retrace and check the steps of the analysis. Giorgi (1975) acknowledges that another investigator, looking at the data differently, could write a different general description, though hardly wholly different:

Consequently, the control comes from the researcher's context or perspective on the data. Once the context and intention becomes known, the divergence is usually intelligible to all even if not universally agreeable. Thus the chief point to be remembered with this type of research is not so much whether another position with respect to the data could be adopted (this point is granted beforehand), but whether a reader, adopting the same viewpoint as articulated by the researcher, can also see what the researcher saw, whether or not he agrees with it. That is the key criterion for qualitative research. (p. 96)

In the next chapter I will attempt to "lay my cards on the table" through the interpretation of interview statements on grades, in order to make it possible for the reader to follow the steps of the interpretative process.