Introduction to Applied Thematic Analysis

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Unsatisfied with the limitations imposed by any one particular martial art, Bruce Lee developed his own composite fighting style, which he called "Jeet Kune Do" (*the way of the intercepting fist*). Jeet Kune Do is not a novel set of fighting techniques, but rather a more focused style of combat that synthesizes the most useful techniques from numerous fighting arts. For Lee, this was an emancipatory endeavor that allowed practitioners of Jeet Kune Do to choose from a wide range of techniques and employ the most appropriate ones for a given objective. In Lee's words:

> I have not invented a "new style," composite, modified or otherwise that is set within distinct form as apart from "this" method or "that" method. On the contrary, I hope to free my followers from clinging to styles, patterns, or molds … [A] Jeet Kune Do man who says Jeet Kune Do is exclusively Jeet Kune Do is…still hung up on his self-closing resistance, in this case anchored down to reactionary pattern, and naturally is still bound by another modified pattern and can move within its limits. He has not digested the simple fact that truth exists outside all molds; pattern and awareness [are] never exclusive. (Lee, 1971, p. 24)

Qualitative research is analogous in many ways to martial arts. Approaches to qualitative data collection and analysis are numerous, representing a diverse range of epistemological, theoretical, and disciplinary perspectives. Yet most researchers, throughout their career, cling to one style with which they are familiar and comfortable, to the exclusion (and often disparagement) of all others. In the spirit of Jeet Kune Do, we feel that good data analysis (and research design, for that matter) combines appropriate elements and techniques from across traditions and epistemological perspectives. In our view, the theoretical or philosophical foundation provides a framework for inquiry, but it is the data collection and analysis processes and the outcome of those processes that are paramount. In other words, "We need a way to argue what we know based on the process by which we came to know it" (Agar, 1996, p. 13). From such a perspective, it does not make sense to exclude a particular technique because of personal discomfort with it, or misconceptions about or prejudices regarding how and why it might be used. We are reminded here of Russ Bernard's (2005) adage that "methods belong to all of us" (p. 2). Eschewing a compartmentalized view of qualitative research and data analysis is the underlying theme of this book and the analytic process we describe. We call this process Applied Thematic Analysis (ATA). Briefly put, ATA is a type of inductive analysis of qualitative data that can involve multiple analytic techniques. Below, we situate ATA within the qualitative data analysis literature to help both frame the process and provide a rationale for the name we have given it.

Before defining our process, we first lay out the overall rationale for the book as well as provide the reader with a sense of what this book does, and does not, cover. As noted in the preface, we have written this book in response to a perceived need for a published volume that gives researchers a practical framework for carrying out an inductive thematic analysis on the most common forms of qualitative data. Although we cover some of the theoretical underpinnings of qualitative research, this book is primarily about process and

providing researchers usable tools to carry out rigorous qualitative data analysis in commonly encountered research contexts. To this end, we wanted to keep the content as focused as possible and present readers with what we believe to be the most efficient, yet rigorous, analytic techniques. We begin from the point of having qualitative data in hand, and therefore do not address research design or data collection strategies.

We refer above to the "most common forms" of qualitative data. By this, we mean data generated through in-depth interviews, focus groups, or field observations (i.e., textual field notes). We recognize that qualitative data can be generated through other activities such as open-ended questions on a survey, free-listing and other semistructured elicitation tasks, or visual data collection techniques. These methods are all useful and appropriate for certain types of research objectives; however, they are not commonly used methods in the broadly defined world of qualitative research.

This book, then, is intended for the researcher, student, or other interested party who has been tasked with analyzing, and making sense of, a set of field notes or transcripts from focus groups or in-depth interviews. How does one go about thematically analyzing these types of data in a systematic way that results in credible answers to the research questions and objectives embedded within a study? Helping readers meet this challenge is the fundamental purpose of this book. Note that the process we delineate can also be used to analyze free-flowing text from secondary data sources, such as in document analysis. But to keep this book simultaneously concise and broadly appealing, the examples and exercises provided are from studies employing the more traditional qualitative data collection techniques.

Defining Qualitative Research

Before talking about process, we should first define what we mean by "*qualitative research,*" since the definition influences how we characterize qualitative data analysis, the data items to be used in our analysis, and the types of analyses we perform on our data. Many existing definitions are constrained by a dichotomous typology that contrasts qualitative and quantitative research or assumes a particular epistemological foundation. Another common descriptive practice is to list attributes as if they are exclusive or necessary features of qualitative research. These types of characterizations exist despite the fact that the attributes listed are: (a) not always present in qualitative inquiry and (b) can also be true of quantitative research (Guest & MacQueen, 2008). A simple Google search of "qualitative research" and "definition" will bring up a host of examples, from websites and research methods course syllabi. For example, the Online Dictionary of the Social Sciences (n.d.) defines qualitative research as follows:

> Research using methods such as participant observation or case studies which result in a narrative, descriptive account of a setting or practice. Sociologists using these methods typically reject positivism and adopt a form of interpretive sociology.

Compare that to Denzin and Lincoln's definition:

> Qualitative research is a situated activity that locates the observer in the world. It consists of a set
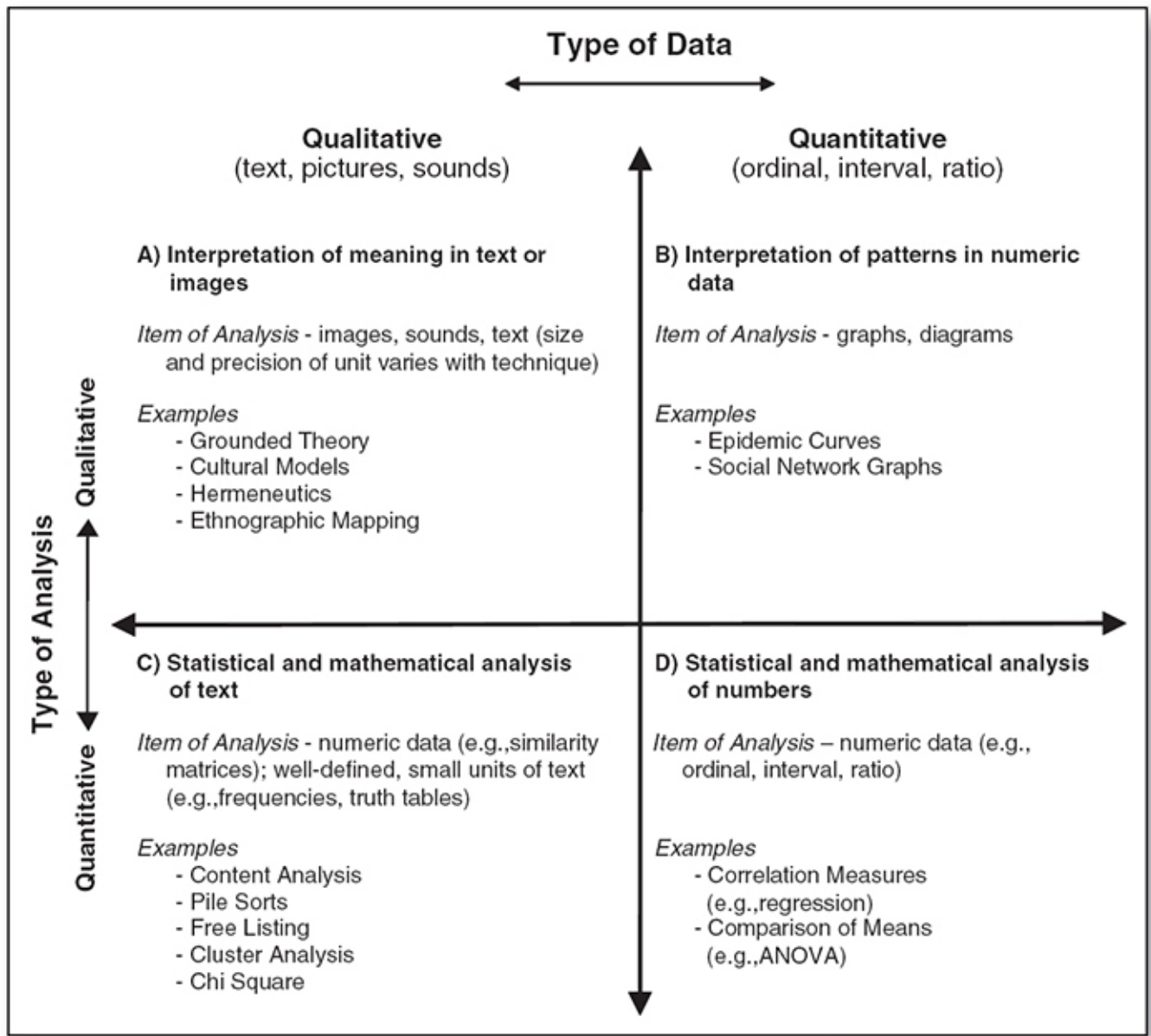
of interpretive, material practices that makes the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them. (2005, p. 3)

Of particular note in these definitions is the joint emphasis on a philosophical stance and a particular structuring of the analytic results as interpretive. The interpretive approach is generally set in contrast to a positivist approach, and indeed, for many the two are incompatible. Quantitative research methods are generally difficult to reconcile with an interpretive approach, while qualitative methods provide considerable room for an interpretive inquiry. From this, many then conclude that qualitative research methods are difficult to reconcile with a positivist approach. This is not true. It is what you do with qualitative data, and not the methods themselves, that define whether you are engaged in a research endeavor that is interpretive, positivist, or hybrid of the two.

We prefer the simpler and more functional definition of qualitative research as offered by Nkwi, Nyamongo, and Ryan (2001): "Qualitative research involves any research that uses data that do not indicate ordinal values" (p. 1). The focus in this latter definition is on the data generated and/or used in qualitative inquiry—that is, text, images, and sounds. Essentially, the data in qualitative research are nonnumeric and less structured data than those generated through quantitatively oriented inquiry, because the data collection process itself is less structured, more flexible, and inductive. An outcome-oriented definition such as that proposed by Nkwi and colleagues avoids unnecessary and inaccurate generalizations and dichotomous positioning of qualitative research with respect to its quantitative counterpart. It allows for the inclusion of many different kinds of data collection strategies and analysis techniques (which we describe later) as well as the plethora of theoretical frameworks associated with qualitative research.

Exclusion of specific data collection or analysis methods from the definition also paves the way for a more refined view of qualitative data analysis, one that distinguishes between the data themselves and the analyses performed on data. As Bernard (1996) notes, many researchers fail to make this distinction, made graphically apparent in Figure 1.1.

Figure 1.1 Qualitative and Quantitative Data Analyses

Type of Data

	Qualitative (text, pictures, sounds)	**Quantitative** (ordinal, interval, ratio)
Qualitative	**A) Interpretation of meaning in text or images** *Item of Analysis* - images, sounds, text (size and precision of unit varies with technique) *Examples* - Grounded Theory - Cultural Models - Hermeneutics - Ethnographic Mapping	**B) Interpretation of patterns in numeric data** *Item of Analysis* - graphs, diagrams *Examples* - Epidemic Curves - Social Network Graphs
Quantitative	**C) Statistical and mathematical analysis of text** *Item of Analysis* - numeric data (e.g.,similarity matrices); well-defined, small units of text (e.g.,frequencies, truth tables) *Examples* - Content Analysis - Pile Sorts - Free Listing - Cluster Analysis - Chi Square	**D) Statistical and mathematical analysis of numbers** *Item of Analysis* – numeric data (e.g., ordinal, interval, ratio) *Examples* - Correlation Measures (e.g.,regression) - Comparison of Means (e.g.,ANOVA)

Type of Analysis

(adapted from Bernard, 1996)

Making the simple distinction between data type and the type of procedure used to analyze data broadens the range of "qualitative research" and opens up an additional category of analytical procedures that other conceptual frameworks exclude (Guest, 2005). Most definitions of qualitative research include only the top left quadrant of the figure and miss an entire group of analytic strategies available to them—that is, those that utilize quantitative analytic procedures on qualitative data (lower left quadrant). Throughout this book, we try to emphasize the complementarity of both types of analytic procedures on the left side of Figure 1.1 and downplay any antithesis between the two.

Analytic Purpose

The design and plan for a particular analysis depends a lot on the general approach taken and the type of outcome expected—the analytic purpose. In this book, we focus on inductive analyses, which primarily have a descriptive and exploratory orientation. Although confirmatory approaches to qualitative data analysis certainly exist, they are employed less often in social/behavioral research than inductive, exploratory analyses. We provide a summary of the differences between the two approaches in Table 1.1. Further reading on how to do confirmatory qualitative research using a thematic approach, also known as *classic content analysis*, can be found in several comprehensive works, including Krippendorf (2004), Weber (1990), and Neuendorf (2001).

Table 1.1 Summary of Differences Between Exploratory and Confirmatory Approaches to Qualitative Data Analysis

Exploratory ("content-driven")	Confirmatory ("hypothesis-driven")
• For example, asks: "What do x people think about y?"	• For example, hypothesizes: "x people think z about y"
• Specific codes/analytic categories NOT predetermined	• Specific codes/analytic categories predetermined
• Codes derived from the data	• Codes generated from hypotheses
• Data usually generated	• Typically uses existing data
• Most often uses purposive sampling	• Generally employs random sampling
• More common approach	• Less common approach

The main difference between the two approaches is that for an exploratory study, the researcher carefully reads and rereads the data, looking for key words, trends, themes, or ideas in the data that will help outline the analysis, *before* any analysis takes place. By contrast, a confirmatory, hypothesis-driven study is guided by specific ideas or hypotheses the researcher wants to assess. The researcher may still closely read the data prior to analysis, but his analysis categories have been determined, a priori, without consideration of the data. Objectives are also formulated differently: Research questions are better suited to exploratory research while hypotheses better capture objectives of a confirmatory nature. Other differences between the two approaches relate to sampling and data sources. Exploratory studies generally are based on nonprobabilistic samples of research participants and generate primary data. Conversely, confirmatory studies typically employ probabilistic sampling strategies to select text from existing sources.

The distinction between inductively exploring data versus assessing hypotheses with data are made clear above. But here we wish to emphasize that while exploratory approaches to qualitative analysis are not specifically designed to *confirm* hypotheses, this does not mean that they are atheoretical. Exploratory analyses are commonly used to *generate* hypotheses for further study. And some exploratory approaches, such as grounded theory, are used to *build* theoretical models derived from the data. Likewise, applied

research initiatives, although intended to address a practical problem in the world, are based on theory. Theory, however implicit, gives direction to what we examine and how we examine it. If we had no idea at all about what the key issues for a participant might be, it would be difficult to find a starting point for questioning. We get guidance as to what's important to study from existing literature, our own knowledge about a topic, or from someone else (funder, boss, client, professor, etc.). Whatever the source, there is some reason to believe (small "t" theory, if you will) that what and who you are going to study is important.

Qualitative Data Types

Bernard and Ryan (1998) provide a useful typology for understanding the range of qualitative data (Figure 1.2). At the first branch of the tree, data are divided into three basic types — text, images, and sound. This book focuses exclusively on text, which is by far the most common form of qualitative data analyzed in the social and health sciences. Although many of the techniques and procedures we present can be applied to images as well, we suggest that readers seriously interested in analyzing visual data refer to other sources that deal explicitly with these topics, to ensure a more nuanced and sophisticated analysis. For analyzing video, we recommend starting with the comprehensive volume edited by Knoblauch and Schnettler (2006). For more general usage of visual data collection methods, the reader might also wish to look at Banks (2008) or Prosser (1998).

Figure 1.2 The Range of Qualitative Research
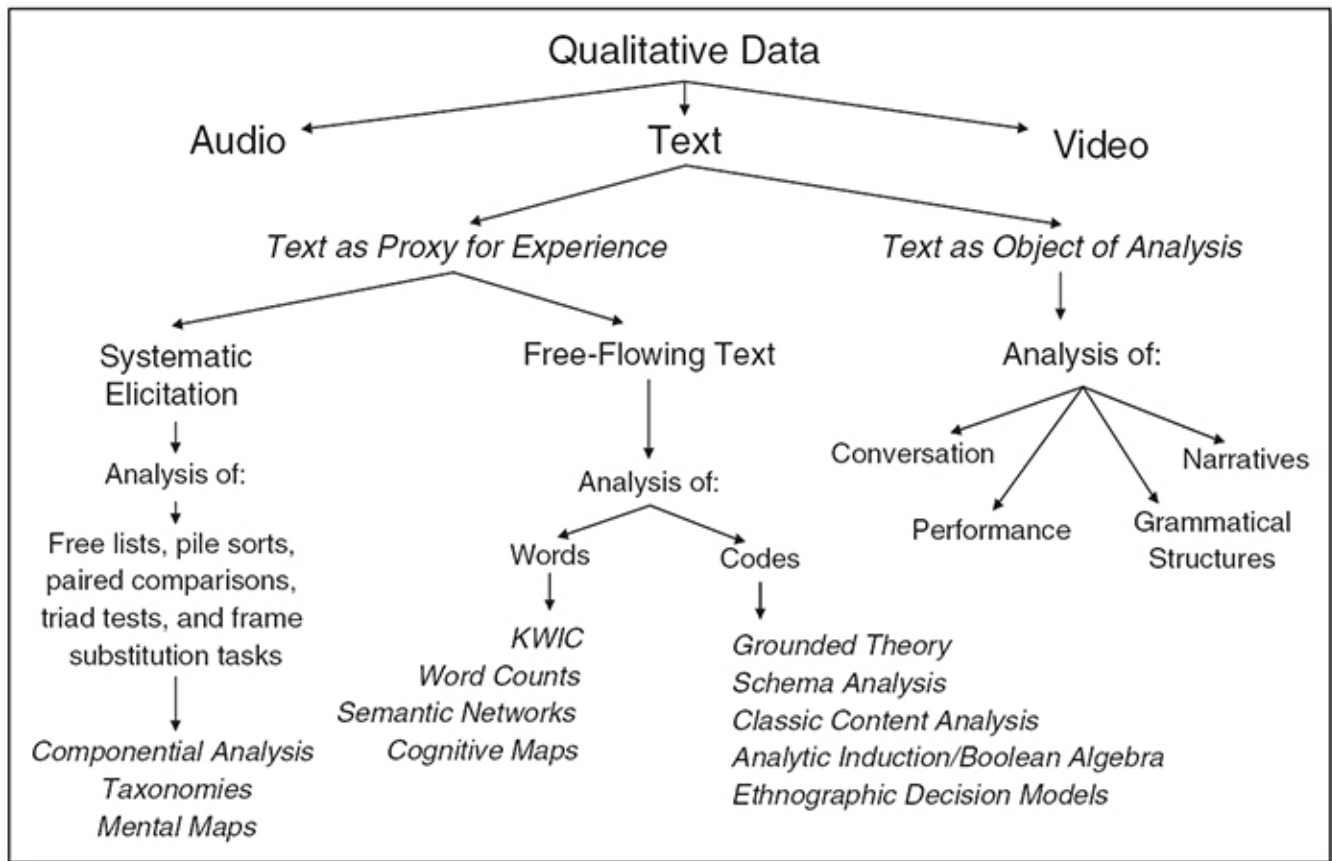
(from Bernard & Ryan, 1998)

Another distinction to be made in the Bernard and Ryan typology pertains to how text is viewed vis-à-vis the object of analysis—the second level of division in the tree. We can, for example, analyze text as an object in and of itself, as shown in the right branch of Figure 1.2. This strategy is most common in linguistic analyses and concerns itself with the structure and meaning within the text and words themselves. On the other side, text can be analyzed as a proxy for experience in which we are interested in individuals' perceptions, feelings, knowledge, and behavior as represented in the text, which is often generated by our interaction with research participants. This latter type of text analysis, known as the *sociological tradition* (Tesch, 1990), is the method most often employed in the social and health sciences and is the branch of qualitative analysis upon which this book focuses.

Even when utilizing text as a proxy for experience, there is substantial breadth in the ways data can be collected and analyzed. Elicitation techniques that generate data can be relatively systematic and structured, as in free listing or pile sorting, depicted in the far left of the diagram (for more details, see Weller & Romney, 1988). Data elicited with these types of techniques require a different type of analysis than does free-flowing text typically elicited in less structured data collection events such as unstructured or semistructured interviewing or document analysis. Because most qualitative data collected or available are in the form of free-flowing text (i.e., focus groups and in-depth interviews), we narrow in on this dimension and follow this

branch of the tree, where we see the divide between analysis of words and analysis using themes and codes.

In quantitatively oriented word-based analyses, such as word counts or semantic network analysis, the researcher evaluates the frequency and co-occurrence of particular words or phrases in a body of textual data in order to identify key words, repeated ideas, or configuration of words with respect to other words in the text. Comparisons can then be made with respect to these metrics between groups of interest. Word-based analyses also can include associated attributes of key words and other semantic elements, such as synonyms, location in the text, and surrounding words or phrases (Dey, 1993, p. 59). The key-word-in-context (KWIC) method, for example, entails locating all occurrences of particular words or phrases in the text and identifying the context in which the word appears. Typically, one can do this by predetermining how many words (e.g., 30) before and after the key word to include in the analysis. A less formal variation of the technique simply locates the key word and includes in the analysis as many of the surrounding context words as are needed to achieve the given analytic aims (Guest et al., 2007). All of the above word-based analyses can help researchers discover themes in text (Bernard & Ryan, 1998) or to complement other analyses (see e.g., Guest et al., 2007), in addition to being analytic strategies in and of themselves.

Word-based techniques are valued for their efficiency and reliability. Specialized software can quickly scan large numbers of text files and tally key words. (IN-SPIRE software [Pacific Northwest National Laboratory, 2008], e.g., can process up to 100,000 one-page documents in under 30 minutes and produce very interesting data reduction displays). And since the original, "raw" data are used, there is minimal interpretation involved in the word counts, generally resulting in greater reliability. The main drawback to this type of analysis is that context is usually not considered or is highly constrained, limiting the richness of the summary data produced. Also, key concepts can be completely glossed over in a word-based analysis. If, for example, one was interested in seeing if in-depth interview participants talked about stigma when asked about HIV/AIDS, it is unlikely the actual word "stigma" would be used. People might talk about being shunned by their family or losing their job due to their HIV status while never using the actual term *stigma.* Word-based analyses also run into difficulties when it comes to translated text, when translator/translation variability can create problems for analytic reliability. We discuss word searches in more detail in Chapter 5.

Thematic Analysis

Thematic analyses, as in grounded theory and development of cultural models, require more involvement and interpretation from the researcher. Thematic analyses move beyond counting explicit words or phrases and focus on identifying and describing both implicit and explicit ideas within the data, that is, themes. Codes are then typically developed to represent the identified themes and applied or linked to raw data as summary markers for later analysis. Such analyses may or may not include the following: comparing code frequencies, identifying code co-occurrence, and graphically displaying relationships between codes within the data set. Generally speaking, reliability is of greater concern with thematic analysis than with word-based analyses because more interpretation goes into defining the data items (i.e., codes) as well as applying the codes to chunks of text. This issue is even more pronounced when working in teams with multiple analysts. To

maintain rigor, strategies for monitoring and improving intercoder agreement, and therefore reliability, should be implemented in the analytic process (see Chapters 3 and 4). Despite these few issues related to reliability, we feel that a thematic analysis is still the most useful in capturing the complexities of meaning within a textual data set. It is also the most commonly used method of analysis in qualitative research. For these reasons, it is the primary focus in the chapters that follow.

One important dimension of qualitative analysis is not represented in Figure 1.2—the length of a datum. Text, for example, can be something as simple as a single-word response to an open-ended question on a survey (e.g., "In what city were you born?") or as complex as a corpus of text thousands of pages in length. Along this continuum, analytic strategies will likely vary, so the length of items for analysis needs to be taken into account when planning an analysis (see Chapter 2). That being said, most qualitative researchers work with transcribed data generated from in-depth interviews and focus groups that are typically 1 to 2 hours in length. Transcripts for these data collection activities may range from 10 to 40 pages per individual or group, with focus groups leaning toward the longer end of the range. Complexity of a study involving qualitative data can also vary dramatically, ranging from just a handful of focus groups to multiple data types generated from hundreds of data sources.

All of the analytic techniques described by Bernard and Ryan (1998, 2010)—are useful, and each has its place in the world of research. Usually, though, when we talk about qualitative research in the social or health sciences, we are referring to textual data generated from in-depth interviews and focus groups—which are often transcribed verbatim from audio recordings—and, to a lesser degree, participant observation notes. And, in the vast majority of cases, thematic analyses, rather than word-based approaches, are used for the reasons already indicated. This also explains the second word in the book's title. But what about the first word in the book's title—*applied*? Why was this term chosen? And where does *applied thematic analysis* fit into Bernard and Ryan's typology and in relation to common theoretical approaches to data analysis? The following section addresses these and other questions.

Theoretical Considerations

Applied Research

Let's first get the term *applied* out of the way. Most definitions of applied research refer to the common end purpose of solving practical problems. This is typically distinguished from "pure" research, oriented toward furthering existing knowledge, for the sake of curiosity and knowledge itself. The main thrust of this book has to do with understanding the world and trying to answer research problems of a more practical nature. Note that we do not make a distinction in this case between researchers in academia versus those working in nonacademic settings: The approach we outline is equally useful for researchers in either context. We also should note that one could certainly develop theory and build on knowledge using the processes we present. In fact, we include a section on building theoretical models in Chapter 3. But, here we assume that readers

are interested primarily in trying to understand and explain the world in a rigorous, reliable, and valid fashion. It is our belief that theory or models (or any other assertions about the way things are) should be supported by data that have been collected and analyzed in a systematic and transparent manner. The methods we discuss, therefore, could be viewed as a necessary precursor to theory, not antonymic to it. Of course, this is predicated on the belief in the primacy of empirical observation in the generation and interpretation of knowledge. We expand on this concept in the section "Interpretivism and Positivism."

Grounded Theory

The emphasis on supporting claims with data is what links applied thematic analysis to *grounded theory*. Grounded theory is a set of inductive and iterative techniques designed to identify categories and concepts within text that are then linked into formal theoretical models (Corbin & Strauss, 2008; Glaser & Strauss 1967). Charmaz (2006) describes grounded theory as a set of methods that "consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories 'grounded' in the data themselves" (p. 2). As Bernard and Ryan (1998) note, the process is deceptively simple: (1) read verbatim transcripts, (2) identify possible themes, (3) compare and contrast themes, identifying structure among them, and (4) build theoretical models, constantly checking them against the data. Applied thematic analysis involves Steps 1 through 3 as well as a portion of Step 4. As implied by Step 4, a key attribute of the process is that the resulting theoretical models are grounded in the data. In applied research, our output may or may not be a theoretical model (which comprises a distinction with grounded theory), but as with a grounded theory approach, we are greatly concerned with ensuring that our interpretations are supported by actual data in hand.

Our approach also shares the systematic yet flexible and inductive qualities of grounded theory. As noted above, grounded theory methodology, done properly, systematically compares themes and emergent theory to data points. A consistent premise embedded throughout this book is that thematic development and subsequent interpretation of a data set should always be congruent with the raw data/text at hand. The analytic approach we present is also systematic in terms of data processing—for example, codebook development, code application, and data reduction. Although systematic, the discovery and elaboration of themes in grounded theory is inductive and constantly evolving. Likewise, the process we outline for developing a codebook, while systematic, is iterative; a codebook is never really finalized until the last of the text has been coded. We also find iteration useful vis-à-vis reanalysis of data from a different angle or using additional data reduction techniques on a data set, and revising our initial interpretations accordingly.

As mentioned earlier, our method does not preclude theoretical development. However, its primary goal is to describe and understand how people feel, think, and behave within a particular context relative to a specific research question. In this way, applied thematic analysis is similar to phenomenology, which seeks to understand the meanings that people give to their lived experiences and social reality (Schutz, 1962, p. 59).

Phenomenology

Phenomenology is based on the philosophical writings of Edmund Husserl and Maurice Merleau-Ponty. As an approach to data collection and analysis, its roots lie in humanistic psychology (Giorgi, 1970, 2009; Wertz, 2005). In phenomenological research, it is the participants' perceptions, feelings, and lived experiences that are paramount and that are the object of study.

Giving voice to "the other" is a hallmark of humanism and humanistic anthropology, and this tradition has carried over into qualitative research in general. The notion of open-ended questions and conversational inquiry, so typical in qualitative research, is founded on this principle as it allows research participants to talk about a topic in their own words, free of the constraints imposed by the kind of fixed-response questions typically seen in quantitative studies. Simultaneously, the researcher learns from the participants' talk and dynamically seeks to guide the inquiry in response to what is being learned. We feel that one of the greatest strengths of qualitative research is this ability to ask questions that are meaningful to participants and to likewise receive responses in participants' own words and native cognitive constructs. Of additional benefit in this regard is the use of inductive probing—whether in focus groups, in-depth interviews, or participant observation—which allows the researcher to clarify expressions or meaning and further permits participants to tell their story. Whether describing the technological needs of Fortune 500 customers or the lived experiences of Ecuadorian shrimp fishers, providing a voice to the research participant is part of the anthropological tradition (and qualitative research in general), and this stems from its phenomenological roots (Guest, 2002). We are not saying that quantitatively oriented research cannot have a similar populist viewpoint; only that the nature of qualitative data and the data collection process are more conducive to such an enterprise.

Telling a good story, as compelling as it may be, is not enough, however. Convincing other researchers and policymakers of the relevance of your data and findings in an evidence-based world will require more than presenting a few evocative or emotionally moving stories and quotes (although these can help!). Our strategy, therefore, is to use a range of analytic devices available to make our case. This includes presenting numbers and talking about how the data are structured, in addition to providing an engaging narrative. Another distinction, therefore, between the analytic method we describe and grounded theory (and phenomenology for that matter) is the use of quantification. The former typically does not include any sort of quantification. As Strauss and Corbin emphasize in their description of grounded theory, the process refers to a "**non**mathematical [bold in original] analytic procedure that results in findings derived from data gathered by a variety of means" (1990, p. 18). In contrast, applied thematic analysis uses quantitative techniques, in combination with interpretive and other techniques, to confront a research problem. This brings us to the final theoretical dimension to be discussed in this chapter—the "divide" between the interpretive and positivist approaches to qualitative research.

Interpretivism and Positivism

The controversy between interpretivism and positivism in the social sciences and humanities is no secret. Debates continue to erupt in fields of anthropology, sociology, geography, and other disciplines about the

merits of either approach. Proponents of the interpretive school, popularized by scholars such as Clifford Geertz (1973), argue that the scientific method is reductionist and often misses the point of qualitative research. Instead, this approach, stemming from a hermeneutic tradition, is most interested in interpreting deeper meaning in discourse and understanding multiple realities (as opposed to one "objective" reality) that are represented in a collection of personal narratives or observed behaviors and activities. Hermenuetics was originally the practice of interpreting meaning within biblical text. Usage of the term has expanded to include interpretation of nonreligious texts in search of underlying sociopolitical meaning. To an interpretivist, the story one tells, and its effect on the intended audience, is the centerpiece of the method. This point is illustrated in the following passage from Geertz (1973):

> Cultural analysis is intrinsically incomplete. And, worse than that, the more deeply it goes the less complete it is… There are a number of ways of escaping this—turning culture into folklore and collecting it, turning it into traits and counting it, turning it into institutions and classifying it, turning it into structures and toying with it. But they *are* [italics in original] escapes. The fact is that to commit oneself to a semiotic concept of culture and an interpretive approach to the study of it is to commit oneself to a view of ethnographic assertion as … "essentially contestable." Anthropology, or at least interpretive anthropology, is a science whose progress is marked less by a perfection of the consensus than by a refinement of debate. What gets better is the precision with which we vex each other. (p. 29)

From a procedural standpoint, data analysis in this tradition (and phenomenology as well) tends to be less structured and typically unconcerned with measurement or quantification, highlighting instead the meaning—both personal and social—interpreted within the discourse. The analytic enterprise is strictly qualitative, falling into the upper left quadrant of Figure 1.1.

Positivism, as viewed in contemporary social science, follows a different path, one that is embedded within the scientific method. A positivist approach is based on the fundamental ideas that: (a) interpretations should be derived directly from data observed, and (b) data collection and analysis methods should, in some way, be systematic and transparent. Criticizing the interpretive school for being overly subjective and politicized, researchers from a positivist tradition attempt to ascertain as close a picture to objective reality as possible, within the limitations imposed by the study parameters. Within the field of qualitative data analysis, positivist oriented researchers devote a significant amount of energy and time to systematic analytic procedures and identification of structure within the data. The approach encourages the use of measurement and quantification and tends to fall more (though not exclusively) into the lower left quadrant of Figure 1.1.

From a procedural standpoint, Bernard and Ryan (1998) define the positivist approach to qualitative data analysis as involving "the reduction of texts to codes that represent themes or concepts and the application of quantitative methods to find patterns in the relations among the codes" (p. 596). The analytic process outlined in this book utilizes various data reduction techniques, and, admittedly is biased toward a positivist perspective. That said, the act of identifying themes within text, among other components of the data analysis process, is itself a highly interpretive endeavor. Throughout the book, we emphasize the need to always refer

back to the raw data and caution against relying only on summarized forms of data. As such, the approach we advocate embraces key elements of the interpretive school of thought.

Applied Thematic Analysis

So where does *applied thematic analysis* fall relative to all the approaches and procedures described above? Applied thematic analysis as we define it comprises a bit of everything—grounded theory, positivism, interpretivism, and phenomenology—synthesized into one methodological framework. The approach borrows what we feel are the more useful techniques from each theoretical and methodological camp and adapts them to an applied research context. In such a context, we assume that ensuring the credibility of findings to an external audience is paramount, and, based on our experience, achieving this goal is facilitated by systematicity and visibility of methods and procedures.

Our intent is to keep this book as practical, focused, and concise as possible. We hope to impart a useful set of procedures that can be employed to conduct rigorous qualitative data analyses that ultimately will be persuasive to funders, policymakers, and other researchers. For this reason, with the exception of the introduction, we do not directly engage with epistemology or theory. The five additional readings at the end of this chapter will provide the interested reader with a basic guide to theory and background in the philosophy of social science.

To summarize, the ATA approach is a rigorous, yet inductive, set of procedures designed to identify and examine themes from textual data in a way that is transparent and credible. Our method draws from a broad range of several theoretical and methodological perspectives, but in the end, its primary concern is with presenting the stories and experiences voiced by study participants as accurately and comprehensively as possible. As mentioned earlier, applied thematic analysis can be used in conjunction with various forms of qualitative data; however, for the sake of concision we focus the contents of this book on analyzing text generated through in-depth interviews, focus groups, and qualitative field notes. These are by far the most common forms of textual data encountered by researchers doing qualitative research.

We need to be clear here that ATA is *not* a novel approach to qualitative data analysis. In fact, quite the contrary is true; researchers have been doing very similar types of analyses for decades. What has been lacking, at least in our view, is a practical and simple, step-by-step guide on how to do an inductive thematic analysis, particularly with an emphasis on methodological rigor. It is precisely this dearth of published instruction on the topic that prompted us to write this book.

The approach one brings to qualitative analysis will depend on a number of factors, such as

- Research objective(s)
- Researcher familiarity with a given approach
- Audience for the research
- Logistical, temporal, and funding parameters

Each approach comes with its own set of advantages and disadvantages; choices between approaches involve trade-offs. Consideration must be given to various parameters, and the outcomes for different choices weighed and prioritized. Table 1.2 summarizes some of the defining features for the aforementioned thematic analytic approaches. Note that what one researcher sees as a limitation another might see as a strength, contingent upon their epistemological bent. For example, "extrapolating beyond the data" is likely perceived by a positivist in a negative light. In contrast, a researcher with an interpretive view will probably see this additional latitude as a strength.

Table 1.2 Comparative Summary of Three Theme-Based Approaches to Analysis

	Phenomenology	*Grounded Theory*	*Applied Thematic Analysis*
Defining Features	• Focuses on subjective human experience • Analysis is typically thematic in nature • Often used in humanist psychology, but approach has been adopted in humanities and social sciences	• Uses a systematic comparative technique to find themes and create codes • Properly done, requires an exhaustive comparison of all text segments Theoretical models built on themes/ codes that are "grounded" in the data	• Identifies key themes in text. Themes are transformed into codes and aggregated in a codebook. • Uses techniques in addition to theme identification, including word searches and data reduction techniques. • Can be used to build theoretical models or to find solutions to real-world problems.
Epistemological Leaning	• *Interpretive* • Subjective meaning is interpreted and extrapolated from discourse	• *Interpretive/Positivist* • Interpretive in that quantification is not included • Positivist in that it is systematic and assertions are required to be supported with evidence (text)	• *Positivist/Interpretive* • Positivist in that assertions are required to be supported with evidence (text). • Processes are also systematic and quantification can be employed. • Methods and processes in ATA (except those of a quantitative nature) can also be used in an interpretive analysis.
Strengths	• Good for smaller data sets • Has latitude to explore data more deeply and extrapolate beyond the text • Good for cognitively oriented studies	• Good for smaller data sets • Exhaustive coverage of data • Interpretation supported by data • Can be used to study topics other than individual experience (e.g., social process, cultural norms, etc.)	• Well suited to large data sets • Good for team research. • Inclusion of non-theme-based and quantitative techniques adds analytic breadth. • Interpretation supported by data • Can be used to study topics other than individual experience.
Limitations	• Focuses only on human experience • May interpret too far beyond what's in the data • Not necessarily systematic	• Does not include quantification • Time consuming ; logistically prohibitive for large data sets	• May miss some of the more nuanced data.
Key Sources	• Giorgi (1970, 2009), Moustakas (1994), Smith, Flowers, and Larkin (2009)	• Glaser and Strauss (1967), Corbin and Strauss (2008), Charmaz (2006)	• No one text. • Elements of inductive thematic analysis can be found in numerous books on qualitative data analysis.

Summing Up

The ways in which qualitative data can be collected and analyzed are virtually infinite. A variety of data collection techniques can be employed to gather and/or generate data, each with its own unique properties. Data generated or collected can range from a single word to a narrative relaying an entire life history, to a photograph or video. Epistemological perspectives and theoretical frameworks also vary, which in turn influences how a researcher approaches the data when it's time for analysis. In this chapter, we have attempted to orient the reader to this diversity and position our approach—applied thematic analysis—within the existing literature.

As we acknowledged above, what we call "applied thematic analysis" is not new. It is based on commonly employed inductive thematic analyses, and shares many features with grounded theory and phenomenology. One attribute that sets ATA apart is its breadth of scope. Although grounded theory, by definition, is aimed at building theory, ATA is not restricted to this purpose. Likewise, interpretive phenomenology focuses on subjective human experience, whereas the topic of an ATA can be broader and include social and cultural phenomena as well. ATA also allows greater flexibility with regard to theoretical frameworks and, subsequently, analytic tools it can employ. Although more comfortably applied within a positivist framework, many of the principles of ATA (all really, except quantification) can be incorporated into an interpretive analytic enterprise. There is nothing about the systematicity and transparency of process within ATA that is inherently at odds with interpretivism.

In our view, the greatest strength of ATA is its pragmatic focus on using whatever tools might be appropriate to get the analytic job done in a transparent, efficient, and ethical manner. This expanded toolbox includes various forms of quantification, word searches, deviant case analyses, and other analytic tools. Our approach also takes into account the challenges of working with focus group data, comparing subgroups, and working within a mixed methods project. This is why we include a chapter on comparing thematic data and another on integrating qualitative and quantitative data, which is an increasingly used research strategy.

This book is for the practitioner of qualitative research, in both applied and nonapplied settings. Whether you conduct qualitative research to evaluate programs and interventions, as formative research within a larger study, or as a means of describing and explaining a targeted phenomenon, the procedures contained in this monograph will help instill both focus and rigor into your analysis. In the pages that follow, we provide suggestions on how to do a systematic thematic analysis using a variety of tools and approaches. The methods we describe are certainly not the only ones available. They also may not be appropriate for more specialized analyses. We have done our best to provide references in these instances. For the most part, however, we feel that the guidelines and procedures set out in the book will enhance and streamline the vast majority of thematic analyses. We have tried to take the best from the multitude of methods and techniques and blend these pieces together to comprise a comprehensive approach that we have termed *applied thematic analysis*. As much as we believe in the procedures and techniques we describe, we caution

the reader against using them blindly, or thinking that the content of this book is static. It is not. In keeping with the spirit of Jeet Kune Do, we, as researchers, are constantly learning and evolving, and striving to create new techniques and improve upon existing ones. We encourage the reader to do the same.

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