Transcription in Research and Practice: From Standardization of Technique to Interpretive Positionings

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Transcription is an integral process in the qualitative analysis of language data and is widely employed in basic and applied research across a number of disciplines and in professional practice fields. Yet, methodological and theoretical issues associated with the transcription process have received scant attention in the research literature. In this article, the authors present a cross-disciplinary conceptual review of the place of transcription in qualitative inquiry, in which the nature of transcription and the epistemological assumptions on which it rests are considered. The authors conclude that transcription is theory laden; the choices that researchers make about transcription enact the theories they hold and constrain the interpretations they can draw from their data. Because it has implications for the interpretation of research data and for decision making in practice fields, transcription as a process warrants further investigation.

In many domains of the social and human sciences in which human interaction is of interest to researchers, the research method of choice involves making observations and audiotaped or videotaped recordings of social and communicative interaction (either in naturalistic or interview settings) followed by verbatim transcription, coding, and analysis. This approach to qualitative data collection and analysis has been used and refined for more than 25 years in linguistic research and also has been widely adopted by researchers in disciplines such as developmental psychology, sociology, and anthropology. Methods of recording, transcribing, coding, and analyzing language interactions are also employed by researchers and practitioners alike in professional fields, such as speech-language pathology, education, and counseling.

There is a burgeoning literature on qualitative analysis, contrasting the nature of this paradigm with quantitative approaches, clarifying different purposes and approaches within the qualitative paradigm, identifying the mutual contributory roles of researcher and participants, and addressing issues such as validation of analyses and generalizability (Kvale, 1996; Lapadat & Janzen, 1994; Lincoln, 1995; Marshall & Rossman, 1995; Miles & Huberman, 1994; Tesch, 1990; Wolcott, 1990). Qualitative analysis programs exist to aid in the sorting, coding, transformation, and storage of text data (Miles & Huberman, 1994; Tesch, 1990). We are seeing the emergence of electronic resources for storing, accessing, distributing, and supporting dialogue about corpora and text data archives (Bloom, 1993; J. A. Edwards, 1993b; Ehlich, 1993; MacWhinney, 1995). Yet, a basic process integral to this type of qualitative research—transcription—has received scant attention in the research and professional literatures (J. A. Edwards, 1993a). Although a methodological literature treating this topic is emerging within the domains of discourse analysis (J. A. Edwards & Lampert, 1993; Schiffrin, 1994), conversation analysis (CA) (Psathas & Anderson, 1990; Silverman, 1993; ten Have, 1997), and speech-language pathology practice (Hughes, McGillivray & Schmidek, 1997; Retherford, 1993), for the most part, commentary is particular to narrow and often highly technical areas of research and has not received wider circulation through the literatures of the many disciplines and professional fields that employ language as data.

In empirical publications, researchers reporting data collection and analysis procedures seldom make mention of transcription processes beyond a simple statement that audio- or videotaped data were transcribed. When quoting directly from transcripts, researchers sometimes include a footnote to label idiosyncratic transcription conventions. Yet, keys of transcription conventions employed in a study are included infrequently in published reports, even though there is little agreement among researchers about standardization of conventions (J. A. Edwards, 1993a; Ochs, 1979). It is as if these researchers, through their neglect in addressing theoretical or methodological transcription issues, simply assume that transcriptions are transparent, directly reflecting in text the "hard reality" of the actual interaction as captured on audio- or videotape (yet, see Kvale, 1996; Psathas & Anderson, 1990; Silliman & Wilkinson, 1991, for remarks on how the recording process itself structures the data).

This is a surprising assumption given that this research methodology has arisen, in large part, through the discovery that language itself is not transparent and hence constitutes a rich source of examinable data (Mishler, 1991; Silverman, 1993). It would seem ironic for those of us who collect and analyze the language of human interactions as our primary data to repeat this assumption of transparency with respect to our analysis procedures for handling and manipulating language data. Yet, the notion that transcription is in itself problematic is not often acknowledged in research reports nor taken

into account in training novice researchers or developing applications in professional practice.

We argue that researchers make choices about transcription that enact the theories that they hold. If these theories and their relationships to research processes are left implicit, it is difficult to examine them or to interpret the findings that follow from them. Because the processes of collecting, transforming, and analyzing language interaction data are in themselves theoretical, they have implications for the interpretations and theories that can be drawn from the data (Bloom, 1993; J. A. Edwards, 1993a; Mishler, 1991). In the cases of applied research or professional practice, there are also implications for the education of new practitioners, clinical and instructional decision making, and balancing efficiency and effectiveness. Although transcription is routinely included as an essential part of the methodological process in research and practice, there has been relatively little cross-disciplinary reflection on the nature of transcription and its role. Yet, epistemologically, the very nature of transcription and the assumptions on which it rests can be questioned (Denzin, 1995). Therefore, transcription warrants examination, both as a research process with implications that cut across disciplinary domains and also to develop guides for professional education and practice. We present here a cross-disciplinary conceptual review of the place of transcription in qualitative inquiry.

TRANSCRIPTION AS A RESEARCH METHOD

Each researcher makes choices about whether to transcribe, what to transcribe, and how to represent the record in text. In basic research that employs language as data, current accepted practices involve audio- or videotaping communicative interaction (perhaps with the addition of concurrent observational notes or pre- or postsession research memos) followed by verbatim transcription and analysis, which includes some form of coding process, to make sense of the data (Psathas & Anderson, 1990). However, where language interaction data are used in clinical or instructional practice, time is at a premium, and practitioners are still debating whether less rigorous approaches to handling data, such as omitting the transcription step and coding onsite in real time or coding directly from the audio- or videotaped records, can be substituted for the full process with satisfactory results (Kieren & Munro, 1985). Our focus here is the role of transcription in the full tape-transcribe-code-interpret (TTCI) cycle.

In the early years of mechanical recording and transcription of social and communicative interactions, the focus was on how this technology expanded precision of language data. There was little attention to the role of transcription in the methodology. For the most part, the transcription step was seen as

mundane, technical, or unproblematic, as was evident in its typical absence from discussion in both empirical reports and methodological papers. Although this is still frequently the case, our inspection of writings on transcription as a research method reveals a few voices gradually constructing an argument that counters this assumption of insignificance. The following progression of perspectives has emerged over recent years: the search for conventions, acceptance of a multiplicity of conventions, and abandonment of the quest for standardization in favor of contextualized negotiation of method. Some of the key influences on these changing views have been the diversity of purposes for which transcription has been employed; the increasing availability of electronic equipment such as audio recorders, video recorders, and computers for storing and manipulating language data (Bloom, 1993; MacWhinney, 1995; Tesch, 1990); and the paradigmatic changes in our understanding of the constructed and contextual nature of qualitative data along with its interpretive implications (Bloom, 1993; Cook, 1990; Denzin, 1995; Lincoln, 1995; Miles & Huberman, 1994).

A Search for Conventions

As researchers accumulated experiences transcribing, it became apparent that there were many decisions to be made. How should one organize the page (J. A. Edwards, 1993a; Ehlich, 1993; Mishler, 1991; Ochs, 1979)? How could transcript preparation procedures be designed to balance between competing demands of efficiency and accuracy (Zukow, 1982)? Should orthographic or phonetic transcription (Ingram, 1976; Ochs, 1979) or a modified orthographic approach reflecting pronunciation (Chafe, 1993; Ehlich, 1993; Psathas & Anderson, 1990) be used? What paralinguistic and nonverbal information should be included, and what conventions should be used to symbolize or present it (Chafe, 1993; Du Bois, Schuetze-Coburn, Cumming, & Paolino, 1993; Ehlich, 1993; Psathas & Anderson, 1990)? What should constitute basic units in the transcript—utterances, turns, tone units, or something else (Chafe, 1993; Du Bois et al., 1993; Ehlich, 1993; Mishler, 1991; Psathas & Anderson, 1990)? This phase was characterized by processes of seeking, developing, and sharing proposals and rationales for standardized conventions (see sample transcripts in MacWhinney, 1995, and in Schiffrin, 1994, and lists of conventions in Du Bois et al., 1993, and Psathas & Anderson, 1990).

Ochs's (1979) remarks from 20 years ago on some fundamental issues in using transcription in child language acquisition research remain pertinent to that field and foreshadow contemporary concerns about the problematic nature of transcription in research. She cautions that the use of mechanical recording devices does not eliminate the problem of selective observation but merely delays some of the decision making to the moment of transcription. She decries developmental psycholinguists' lack of concern for examining

transcription as method, pointing out that "*the transcriptions are the research-ers' data*" and that "*transcription is a theoretical process reflecting theoretical goals and definitions*" (p. 44). As we have noted above, these issues remain problematic and are echoed by current writers on transcription as methodology. As the use of language as data has become more widespread, so have the methodological implications.

Nevertheless, Ochs (1979) goes on to argue for developing a set of basic transcription conventions for representing child language while allowing for a certain amount of selectivity reflecting the researcher's interests. She describes the import of decisions about page layout, relative placement of verbal and nonverbal information in the transcript, matters of timing (e.g., overlaps and pauses), choice of orthographic versus phonetic representation, and choice of discourse unit (e.g., utterance, proposition, or turn).

Similarly, Du Bois et al.'s (1993) aim is to systematize the core conventions, categories, and symbols used in transcribing discourse. To this end, they meticulously define unambiguous means of representing various units, speakers, aspects of intonation, terminal pitch, accent and lengthening, tone, pausation, nonverbal vocalizations, voice quality, phonetic segments, inaudible or uncertain portions, environmental noises, and duration. (They are not concerned with representing nonauditory and environmental information.) They provide a transcription example of each convention they propose and a symbol key in an appendix. It is clear that these authors view transcription as a complex technical process of making one-to-one matches between the components of discourse events and the symbols for representing these events. Although they acknowledge that not every researcher will have a need for every symbol they present and that some researchers will require additional "special" symbols (and for this purpose they have reserved a few symbols to be flexibly defined), their positivistic approach is one of ever more precise and proliferating definitions of categories and their situational nuances. In their view, it is at the level of coding, not transcription, that interpretive and "theory-bound" judgments ought to enter into the process (p. 79).

Another recent description of the push to establish a set of shared conventions for transcription comes from the area of CA. CA has been defined as the study of "the social organization of 'conversation,' or 'talk-in-interaction,' by a detailed inspection of tape recordings and transcriptions" (ten Have, 1997, p. 1). Goodwin and Duranti (1992) describe CA as addressing the "doubly contextual" character of talk production (in that talk in action both relies on and produces context), especially through examination of the sequential organization of conversation as a mode of social action (p. 29). Conversation analysts typically employ The Jeffersonian Transcription System developed by Gail Jefferson (Psathas & Anderson, 1990, p. 75; also see Atkinson & Heritage, 1984; Schegloff, 1987).

Psathas and Anderson (1990) aim to explicate conversation analysts' actual transcription practices. They are careful to qualify their claims, point-

ing out that transcripts cannot be neutral, that transcription is both a method and a craft, and that researchers will employ selectivity in deciding what to include in a transcript. Jefferson (1992) also makes similar points when commenting on the processes involved in transcribing and editing Harvey Sacks's lectures for publication. She remarks on the problems of mishearings and spontaneous editing, and tradeoffs between readability, standard form, and faithful conservation of the exact words.

Psathas and Anderson (1990) say that the process of transcribing includes analysis at some level; thus, the audio or video tapes—not the transcripts—are the data. They emphasize that methodical relistening to and reviewing of the recorded interactions is the process through which details become visible and through which multiple researchers can reach agreement. Despite their comments acknowledging a necessary subjectivity in transcription processes, Psathas and Anderson's goal is to lay out a standard set of conventions to enable comparisons across CA studies.

A Multiplicity of Conventions

Over time, what has happened is that sets of conventions have begun to proliferate. The "fixed menu" has given way to a "buffet" of conventions. In Jane Edwards and Martin Lampert's (1993) collection of articles on transcription and coding, several very different approaches to transcription are presented along with convincing rationales as to their research importance. A multiplicity of sets of conventions now coexist side by side, each with a researcher or school of researchers supporting the approach that they have developed. The impetus has shifted away from establishing one standardized set of transcription conventions.

A number of theorists have made the claim that transcription is an inherently theoretical process that is dependent on the theories the researcher holds and that influences the analysis and interpretation cycle (Chafe, 1993; D. Edwards & Potter, 1992; J. A. Edwards, 1993a; Mishler, 1991; Ochs, 1979; Poland, 1995; Psathas & Anderson, 1990). That this argument keeps reappearing in theoretical writings focused on transcription hints at the unexamined standard practice of "transcription as technique" that this perspective counters. For example, Bloom (1993) argues that the researcher is already making coding decisions through the transcription focus and conventions that he or she chooses and that secondary coding processes are both constrained by and further elaborate these initial choices. The real issue that researchers face in transcription is not how to represent everything exhaustively in the text (as attempted by Du Bois et al., 1993) but rather how to selectively reduce the data in a way that preserves the possibility of different analyses and interpretations (Bloom, 1993; Ehlich, 1993). Bloom (1993) describes this goal as "lean transcriptions" that allow for "rich interpretations" (pp. 152, 154).

Standardized transcription conventions aid the handling, comparison, and sharing of language data. However, language meanings and processes, which are situated in time and place and always negotiated or emergent, evade such neat description. This methodological dilemma can be seen in Gumperz and Berenz's (1993) perspective on transcription. Like other researchers discussed above, Gumperz and Berenz describe a set of transcription conventions that permit comparisons of natural language use across various settings. The system they describe was developed for an online text archive at the University of California called Disclab. Thus, as well as facilitating comparison using different researchers' databases, this system was also designed to enable computer search, retrieval, sorting, and coding procedures. Like Chafe, (1993), Du Bois et al. (1993), and Psathas and Anderson (1990), these authors define a set of conventions and provide a transcription key.

However, Gumperz and Berenz (1993) emphasize that just as conversation involves ongoing, contextualized interpretation by speakers and listeners that shapes the emerging conversational events, so too does transcription function as interpretive analysis. Therefore, their aim in what they call "contextualization analysis" (p. 94) is to record on paper those perceptual cues that participants use in processing ongoing conversation and "the rhetorical impact these signs have in affecting the *situated interpretations* on which the conduct and outcome of the exchange depends" (p. 92). Because of this orientation, they note that their system can be neither context-free nor exhaustive. Rather, they aim to "make explicit the processes by which the presuppositions that affect or channel interpretations at any one point are negotiated and to show how talk at any one time coheres with the preceding and following talk" (p. 94). Because transcription is inherently selective and this selectivity is based in the knowledge, beliefs, and interpretations of the researcher, researchers must strive to explicate their decision making, these authors say.

Over the years, major contributions to the topic of transcription, both methodologically and as a theoretical process, have come from the area of CA. However, with the turn to more constructivist and interpretivist notions of discourse and meaning, CA as an approach has been subjected to criticism for its primary emphasis on seeking rules to explain conversational organization and for limiting its scope almost exclusively to conversation itself (see, e.g., recent online debates in the "lang-use" discussion group).[1] Some of this discussion has arisen simply because CA uses some of the most empirical, explicit, coherent, and long-standing approaches to analyzing talk; because procedures have been explicitly defined, they are available for critique. However, a more powerful source of this debate arises from the inescapable interrelationship between theory and method; the ways that CA deals with transcription illustrates this core issue. ten Have (1997) addresses some of the criticisms that have been leveled at CA, including the inadequacy of CA for representing participants' situated meanings, the belief that a researcher can stand aside as "objective," and the neglect of contextual factors.

On the topic of participants' meanings and how they are to be interpreted, ten Have (1997) explains that CA researchers employ recordings of naturalistic, ordinary conversation as data and aim to describe "the competences that ordinary speakers use and rely on in participating in intelligible, socially organized interaction" (p. 20). As such, the primary aim is not to interpret the participants' intended meanings but rather to empirically analyze the social organization of conversation as reflected in rules and recurrent patterns. According to ten Have (1997), use of CA methods for analysis of participants' negotiations of meaning oversteps the purposes for which CA is intended (but, see Schegloff, 1997).

In ten Have's (1997) opinion, a danger facing CA researchers is that they might fail "to evade as far as possible the unthinking and unnoticed use of common sense" (p. 6). He points out that CA researchers have strategies to help them stand aside from their data, such as being nonselective in choosing talk as data (any mundane naturalistic conversation will suffice); using recording processes that serve an "estranging" function (p. 6); and employing transcription, with its painstaking, repetitive review designed to recapture and represent the sequence of events during talk in interaction. He suggests that researchers should make their own transcriptions and that any transcript necessarily will be incomplete. Although ten Have acknowledges that researchers will draw on their insider or member knowledge, he recommends that they attempt to delay the application of this knowledge to late in the analysis process, following transcription. In his view, then, the process of transcription is used to constrain the researcher's theorizing, limiting it to "hearing what is being said and noting how it has been said" (p. 6).

CA, with its focus on recording, transcribing, and then analyzing the sequential organization of ordinary conversation, can be criticized for neglecting contextual factors, such as participants' history and roles, details about setting, and wider institutional and cultural factors. Such information included in or linked to transcripts could elucidate the sequential conversational interactions. ten Have (1997) acknowledges that CA relies "on a reification of its object through the 'overhearing' of tapes and the construction of transcripts, [so it is] restricted in its study of conversational streams as situated practices" (p. 13). However, he sees this exclusivity as a strength. ten Have suggests that because the stream of ordinary talk is "the bedrock for intersubjective understanding" (p. 10; see also Schegloff, 1987), it provides sufficient material for analysis. Schegloff (1997) cautions that approaching an analysis from a particular political or critical stance and selectively attending to external contextual factors of interest to the analyst privileges the perspectives of the researcher over those of the conversational participants, leading to "a kind of theoretical imperialism" (p. 167). The CA process limits prejudging and so, in ten Have's (1997) view, it is both practical and principled; in Schegloff's (1997) view, it is grounded in the data.[2]

This debate about transcription methods employed in CA reflects a deeper issue—what ten Have (1997) calls a tension between analysis and interpretation.

> 'Interpretation,' here, refers to the effort to formulate the relatively unique meaning an utterance, an action or an episode seems to have for participants and/or researchers, while 'analysis' is used to indicate efforts to isolate aspects, mechanisms and procedures that are relevant to a range of cases. (p. 15)

ten Have (1997) defends CA's theoretical commitment to analysis of empirical conversational data over interpretation as a choice to focus on those aspects of the interactional stream that are most accessible. Schegloff (1987, 1992, 1997), on the other hand, often takes his analyses that extra small step into speculating about conversational participants' motives or intentions (e.g., Phyllis found the topic boring; Shane's stance on etiquette was ironic), but only after a detailed examination of the conversational moves and as it is warranted by the empirical evidence.

We have summarized some current discussions in the field of CA to illustrate ways in which theory and method are interdependent. Transcription methods developed in CA can be seen to follow from its theoretical commitments and also to shape the kinds of conclusions that can be reached using this approach to analysis.

Contextualized Negotiation of Method

In contrast to research traditions that have sought standard transcription conventions as a way of enhancing the reliability and generalizability of language data, more recently some researchers have argued that such a quest rests on misguided assumptions (Cook, 1990; Denzin, 1995; Kvale, 1996; Mishler, 1991). These theorists have made the point that there is not a one-to-one correspondence between conversational events that unfold during human interaction and what a researcher transcribes from an audio- or video-taped recording. Rather, the process of transcription is both interpretive and constructive.

In pragmatics-based approaches to discourse analysis, labeled by Cook (1990) as "discourse pragmatics," contextual information beyond the words of the text—those data intentionally excluded from CA—is, by definition, central to analysis. Cook describes information to be included in the transcript as coming from the following sources: text, physical features, paralinguistics, situation, co-text, intertext, thought, and observer (p. 3). However, context is, by nature, both "infinitely delicate and infinitely expandable" (p. 1). He argues, therefore, that transcription can never be complete or objective because the extent of detail that can be transcribed is limited both practically and theoretically. Transcription necessarily involves selection; there are "as many transcription systems as there are transcribers, and a danger is that

each system records not the discourse, but a particular approach to it" (p. 5). This selectivity points to a difficulty in developing any one transcript that can be used by different researchers for different purposes. The quantity of pragmatic information within which any stretch of discourse is embedded precludes exhaustiveness; therefore, every transcript is purposively selective and these initial purposes constrain their subsequent uses.

Cook (1990) remarks that, in most transcripts, no rules for selection of contextual factors are given and the selectivity is never even acknowledged, factors that have implications for making valid interpretations of the data. Although Cook claims that "it is a truism to note that all transcription is in some sense interpretation" (p. 12), often researchers imply transcript objectivity. However, "the subjective, selective and fundamentally *unscientific* nature of analyses of language in context should be acknowledged, and not disguised" (p. 15). His proposed solution is to seek a transcription system that permits and acknowledges the need for selectivity according to changing purposes.

It is interesting to note that although this perhaps was not his intent, Cook's (1990) observations can be construed as bolstering the CA rationale for excluding contextual information external to the conversation from analysis in the first place; this avoids the slippery slope toward unprincipled inclusiveness.[3] However, simply ignoring contextual data arising from, for example, cultural gendered practices or the preeminance of measurement in schooling (Lapadat, 1997) does not make these wider contexts, which might not be explicitly marked by conversationalists, go away. That language interactions are embedded in both macro- and microcontexts, and constructed dialogically though the contextually informed moment-by-moment choices of participants, is undeniable.

As Derek Edwards (1991) has pointed out, talk is both indexical (situated, invokes context) and rhetorical (organized argumentatively). Talk "makes available a range of implications and inferences concerning the speaker's interests, knowledge, thoughts and feelings, [and] efforts at accomplishing particular social actions" (p. 525). Conversational participants respond to these indexicalities in the production of talk. Furthermore, talk is rhetorical in that it is organized to perform social actions and to persuade "with regard to what other people say or think, or are assumed to think, or might think" (p. 526; see also D. Edwards & Potter, 1992). Denzin (1995) takes this line of argument one step further in saying that even the self is in an ongoing process of being created and re-created in discourse: "In speaking I hear myself being created. I hear myself, not as the other hears me (or sees me), but as I want them to hear me. . . . My voice creates the public context for my articulated thought" (p. 11). Therefore, talk is, in its very essence, contextual (Denzin, 1995; also see Lapadat, 1995, for a developmental perspective).

Mishler (1991) extends the argument that transcription is fundamentally interpretive. He says that the common practice of viewing transcription as

merely a technical procedure for "re-presenting" speech reflects a perspective of naive realism, which, he argues, is simplistic. He suggests that rather than language and meaning being mutually transparent, there are, in fact, intractable uncertainties in their relationship (p. 260). Our research practices rest on and evolve through a postmodern understanding of language-meaning relationships "as contextually grounded, unstable, ambiguous, and subject to endless reinterpretation" (p. 260). Therefore, the quest for ever more detailed and precise "objective" transcripts is wrong-headed. Like Ochs (1979), Mischler (1991) agrees that processes of transcription form "a critical step in the social production of scientific knowledge" (p. 261). The innumerable procedural and methodological decisions that researchers make while transcribing reflect their theoretical assumptions and rhetorical purposes.

Mishler (1991) presents two or more versions of transcripts from three different data sets along with analytical commentary showing how transcription itself is fundamentally problematic. He concludes that these sample analyses

> should help put to rest any notion that there is one standard, ideal, and comprehensive mode of transcription—a singular and true re-presentation of spoken discourse. Transcriptions of speech, like other forms of representation in science, reflexively document and affirm theoretical positions about relations between language and meaning. Different transcripts are constructs of different worlds, each designed to fit our particular theoretical assumptions and to allow us to explore their implications. . . . They have a rhetorical function that locates them within a larger political and ideological context. (p. 271)

Kvale (1996), in his book on qualitative research interviewing, characterizes transcriptions as interpretive constructions arrived at through choices made by the researcher. These begin with initial recording decisions (audio or video recording? boundaries of the record? angles and framing?) and continue through to intended purpose of analysis (sociolinguistic? psychological? historical documentation?) and audience (the original interviewees? other researchers? practitioners?). Like other theorists, Kvale notes that analysis begins during transcription. Rather than aiming for completeness, which is not achievable, Kvale writes that researchers should ask themselves, " 'What is a useful transcription for my research purposes?' " (p. 166).

On the whole, however, Kvale (1996) views transcripts as "an impoverished basis for interpretation" (p. 167) because social, temporal, and spatial contextual information available to the participants in the interview are largely absent from the transcripts. The source of the difficulty rests in researchers' unreflective assumption that oral discourse can be transformed into written text without consequence. He says, "attempts at verbatim interview transcriptions produce hybrids, artificial constructs that are adequate to neither the lived oral conversation nor the formal style of written texts" (p. 166). This is especially problematic when transcripts are reified during the interpretive process. He criticizes researchers in the social sciences for being

"naive users of the language that their professional practice and research rests on" (p. 168). Kvale also criticizes researchers employing transcription for insufficient checking of transcript reliability and validity and failing to adequately describe their transcription processes. He looks ahead to the day when qualitative computer analysis programs will operate directly on digitized recordings, bypassing the transcription "detour" altogether (p. 174). Such technical innovations, along with increased awareness of the differences between oral and written language modes, might "reclaim the lived interview conversation from the hegemony of transcripts in interview research" (p. 175).

Poland (1995), who uses transcription of interview data in health promotion research, also questions the adequacy of transcripts (and the audiotape itself) in representing both the interview and the lived experience that the interview references. He remarks that "the transcript as text is frequently seen as unproblematic and is given privileged status in which its authority goes unquestioned" (p. 292). Just as the research interview must be understood as socially constructed—"a co-authored conversation in context" (p. 292)—so too should the transcript be "open to multiple alternative readings, as well as reinterpretation with every fresh reading" (p. 292). The issue that Poland raises is that of positionality, which Lincoln (1995) defines as "the poststructural, postmodern argument that texts, any texts, are always partial and incomplete; socially, culturally, historically, racially, and sexually located; and can therefore never represent any truth except those truths that exhibit the same characteristics" (p. 280). As texts, transcripts are positionings.

Despite the doubts that he has expressed about their potential for representational adequacy, Poland's (1995) primary concern is to enhance the "trustworthiness of transcripts as research data" (p. 294). He provides transcription examples from his own research to illustrate the types of challenges to transcription quality, defined as faithful reproduction of the audiotaped record (a definition strangely at odds with his prior discussion of the constructed nature of transcripts). According to Poland, quality of transcripts can be adversely affected by deliberate, accidental, and unavoidable alterations of the data. He suggests a number of strategies for assessing and increasing transcript quality.

Denzin's (1995) critical view of the place of transcription in postmodern qualitative research elaborates and summarizes the breadth of the argument for contextualized negotiation of meaning. He says that qualitative inquiry, as currently practiced, "presumes a stable external social reality that can be recorded by a stable, objective, scientific observer" (p. 7). Audiotapes, photographs, and transcripts have been the qualitative researcher's tools for the capturing and re-presenting of voices. Transcripts are assembled by researchers and mediated by the researcher's interpretive stance.

Denzin (1995) points to a number of flaws in this "modernistic, postpositivist" research enterprise (p. 7). He remarks that by creating videotapes and

transcripts "as cultural texts that represent experience" (p. 9), we create worlds one step removed from the real interactions that we are trying to study. These worlds are not simply re-presentations but are textual constructions. Every attempt to re-present results in another original creation, another "unrepeatable event in the life of the text; a new link to the historical moment that produced it" (p. 10). Each new retelling is different than the original event in that the meanings and contexts change. Each new retelling is in some ways less than the original because the extraverbal understandings and "theatrical" elements of talk are lost (p. 13), and the original voices, intentions, and interpretations cannot be recovered. Yet, each new retelling is also more because the researcher constructs, organizes, and interprets the seen and heard discursive event for textual presentation to a new "Other." According to Denzin, "Behind the text as agent is the author of the text doing the interpreting. *The other becomes an extension of the author's voice*" (p. 15). In Denzin's view, once we discard our faith in the objective, detached observer overhearing talk in a static world, we must also abandon the assumption that a transcript can be a faithful copy of that world.

Poland's (1995) proposal for addressing transcription issues is neither to use technology to bypass transcription as a step in the analysis, as Kvale (1996) has suggested, nor to abandon this entire approach to knowing in favor of "a new form of textuality," as Denzin (1995, p. 16; see also Glesne, 1997) suggests, but rather for researchers to become more reflective about their transcription procedures. Although we agree that emerging technologies must continue to be explored and adapted for the research enterprise and that ongoing critique of current research processes is essential in the cycle of evolution of new forms and processes of inquiry, we would not discard this productive approach to inquiry. We must keep in mind that critical examination of transcription as a process is still in the beginning stages. What seems clear is that transcription *is* used, but apparently with little consideration for the properties discussed here that illustrate its significance in the research process.

Thus, we agree with Poland's (1995) call for greater reflectivity about whether, when, and how we use transcription. Such reflections must include consideration of the mutual bidirectional and dynamic influences of theory and transcription methodology and their implications for interpretation. At the least, researchers need to acknowledge that transcripts are constructed texts and, as such, decision-making criteria, positionality of the participants (including the researcher), voice, and trustworthiness ought to be addressed during the research and when it is reported. The fundamental issue is one of clarifying criteria for quality in research, a topic that Lincoln (1995) has written about in reference to the broad scope of qualitative research but here pertaining to specific criteria to describe, guide, and evaluate transcription processes in qualitative inquiry.

TRANSCRIPTION IN PROFESSIONAL PRACTICE

Just as many researchers across academic disciplines have taken up transcription as a step in the research process and, for the most part, have been relatively unreflective about the theoretical and methodological implications of using transcription, so too have applied researchers and practitioners adopted transcription for practical purposes. Although researchers within various academic disciplines have begun to examine ways in which transcription methodology is inherently theory laden and how it affects the interpretive process, practitioners and applied researchers have expressed a different set of concerns about transcription.

The most commonly mentioned disadvantages of transcription in practice settings are cost and time (Bertrand, Brown, & Ward, 1992; Gravois, Rosenfield, & Greenberg, 1992), which can affect both turnaround time in returning practical results to community members (Bertrand et al., 1992) and whether the taped data will even reach the analysis stage (Gravois et al., 1992). To these, Rice, Sell, and Hadley (1990) add the disadvantages of requiring access to videotaping equipment and the need for specialized training. Therefore, although several researcher-practitioners have described the full TTCI process as more complete, accurate, and unbiased, and as preserving data for analysis in a more permanent, retrievable, examinable, and flexible manner, some have sought more expedient and less expensive shortcuts to data interpretation (Bertrand et al., 1992; Gravois et al., 1992; Kieren & Munro, 1985).

Bertrand et al. (1992) offer pointers from their experiences using focus group data to advise on policy in international family planning projects. They recommend using the full TTCI process when completeness is desired or detailed comparisons are to be done, assuming time and resources are available. They also describe the alternatives of keeping notes and then subsequently expanding the notes from the audiotaped record or working from notes alone, along with the risks of these approaches and suggestions for cross-checking for accuracy.

Gravois et al.'s (1992) main concern is to provide evidence that coding directly from audiotapes is sufficiently reliable for evaluation research employing interviews of school-based team members that the transcription step in analysis can be omitted. Their finding that intercoder agreement was not significantly different in tape-coding and transcript-coding conditions suggests that this conclusion is warranted. However, this study exhibits a number of methodological flaws, including differential training in coding in the two conditions (favoring the tape-coding condition), the method used to combine data, and the criterion for intercoder agreement accepted as adequate. Most seriously, in the transcript-coding condition, coders worked from transcripts prepared by a typist, apparently without having heard the

tape or having attended the data collection session—a procedure that few researchers or practitioners would recommend.

Kieren and Munro (1985) have examined the hypothesis that the least costly methodological alternative to the full TTCI process in terms of time and money in family studies research is to employ onsite real-time live observation with pencil and paper coding (online coding), omitting the recording and transcription steps. However, they found that even with extensive training in coding, observers using this method lost half to two thirds of the data and were unreliable in recognizing units of data and assigning categories. Furthermore, decision points were irretrievable and thus not available for examination or replication. They rejected this method as insufficient for the needs of research into family interaction. Kieren and Munro also evaluated the approach of coding directly from videotapes, using either pencil and paper or a mechanical coding device, but found a loss of 13% to 34% of the data and marked inconsistencies in category assignments as compared with procedures using transcription and then coding. Although coding directly from videotapes was 4 to 13 times as fast as procedures using transcription, and sufficiently accurate for some professional purposes, these findings suggest that transcription is an essential step for applied research to achieve thoroughness, accuracy, and retrievability.

In speech-language pathology, the client's language itself—language structures, content, and use—is the central focus of practitioners' assessment and intervention. Therefore, this field has an extensive collection of observational procedures for language sampling, employing a variety of categorical, narrative, and descriptive tools (Silliman & Wilkinson, 1991).

For example, Rice et al. (1990) describe the development of a clinical procedure for online coding of preschool children's social interactions that bypasses the need for taping and transcribing. In assessing the reliability of the coding procedure, they obtained intercoder agreements (calculated as percentage of agreement rather than employing a more rigorous kappa statistic) ranging from 89% to 100% when coding from videotapes and from 83% to 100% when coding online in real time. However, the two observers underwent 10 hours of training in coding from videotapes and an additional 10 hours of training in online coding; therefore, this approach cannot be considered expedient timewise. These reliability results point to the potential of this procedure as a clinical tool that can be used in naturalistic settings to describe and document language development and aid in formulating treatment goals. However, the authors acknowledge its limitations in that it does not produce a record of interactions and it is limited to tracking a single conversational dimension. They suggest that this tool be used in addition to a standard assessment battery and that it be supplemented with transcriptions of interactions.

Language recording, transcription, coding, and interpretation procedures developed by language acquisition researchers have been adapted to meet

the clinical needs of speech-language pathologists. Procedures for TTCI have a long history in language acquisition research, having developed in parallel with those in sociolinguistics, CA, and discourse analysis (Bloom & Lahey, 1978; Ingram, 1976; Ochs, 1979; Zukow, 1982). Because of demands particular to representing young children's and/or disordered speech and language, different transcription issues have come to the fore. For example, Ingram (1976) identified the need for a suitable and consistent system and level of phonetic transcription, the issue of phonetic variability in young children's speech both in spontaneous and elicited samples, and the existence of factors influencing the accuracy of hearing phonetic detail during transcribing. He suggested transcripts should include a phonetic representation, a word-by-word gloss, an interpretation of the meaning of the utterance, and the context of the utterance for each child utterance, as well as the adult partner's utterances (in standard orthography) (p. 94).

Other researchers, writing for both language acquisition researchers and speech-language pathologists, have addressed topics such as representation of unintelligible utterances (Bloom & Lahey, 1978), transcription of adult coparticipants' misinterpretations (Bloom & Lahey, 1978), page layout (Bloom & Lahey, 1978; Ochs, 1979), choice of discourse unit (Hughes et al., 1997; Ochs, 1979), and inclusion of contextual information (Bloom & Lahey, 1978; Ochs, 1979; Zukow, 1982). For example, for contextual information, Bloom and Lahey (1978) suggest conventions for transcribing actions, pointing and other gestures, facial expression, temporal ordering, and eye gaze (p. 605), whereas Zukow also uses conventions for representing body orientation.

Because of the centrality of language sampling in speech-language pathologists' clinical practice, recent years have seen the emergence of commercially available language sampling guides and training manuals (Hughes et al., 1997; Retherford, 1993). Retherford (1993) points out that in clinical practice, "the validity of the analysis procedures applied to language transcripts is contingent upon the quality of the transcriptions" (p. 15). She comments that she originally developed her guide to aid in teaching student clinicians procedures to tape, transcribe, code, and interpret the semantic, syntactic, and pragmatic dimensions of clinical language samples. Her *Guide to Analysis of Language Transcripts* offers "explicit directions, guided practice, and principles for the interpretations of results" (p. x). With respect to the transcription component, it provides conventions and a standard transcript layout suitable for assessing and tracking preschool language acquisition, adapted from Bloom and Lahey's (1978) model.

Hughes et al.'s (1997) *Guide to Narrative Language* was developed for school-based speech-language pathologists' use and also for teaching student clinicians. The focus is oral and written narrative development during the school years. The TTCI procedures in this guide are designed to facilitate assessment of narrative discourse, to document changes in narrative discourse over time, and to provide a means of quantifying this information so

that it can be used for the purposes of planning and obtaining funding for special services in schools.

A central transcription issue for these authors is the segmentation of transcripts. They advocate using the minimal terminal unit (T-unit) and communication units (CU), both of which reflect clause structure and thus syntactic complexity in written and oral samples, respectively (Hughes et al., 1997, p. 37). They note that segmentation choices should depend on the kind of analysis to be done (p. 41). Because clause structures increase in complexity throughout narrative development, they argue for a segmentation method that indexes clausal structure but also note that transcripts could be segmented on the basis of propositions to track semantic development, or "sound/sentence thought," to enhance comparability with the familiar notion of sentences used in language arts curricula (p. 58). Hughes et al. (1997) also identify the need to make transcription decisions about mazes, abandoned utterances, garbles, verbal disruptions, and silent pauses (p. 59). They point out that because transcription choices will affect the subsequent process of assessing, tracking, and reporting macrostructures of narratives, they should be explicit and consistent.

One final example of an application of the full TTCI process in professional practice comes from Lindsay's (1996) examination of primary teachers' discourse. Detailed transcripts were made from audio and video recordings, including contextual and nonverbal as well as verbal information. These transcripts then served as the basis for researcher-teacher conferencing about communicative and pedagogical processes. Although these teachers recognized the labor-intensive nature of transcription, they all described how the careful reading and discussion of transcripts played a crucial role in deepening their insights into their teaching processes.

In summary, across a variety of applied research and practice domains, researcher-practitioners have argued that the full TTCI process is more complete, accurate, and unbiased for examining language data than alternative approaches, such as online coding or taking field notes. They have noted that another advantage of transcription is that it preserves the data in a more permanent, retrievable, examinable, and flexible manner. So, although the cost and time involved in doing transcriptions is a serious disadvantage in most practice settings, more expedient and inexpensive shortcuts to data interpretation have typically proved unsatisfactory. The field of speech-language pathology, in particular, with its explicit focus on language development and disorders, has evolved a fairly extensive treatment of transcription processes drawing on basic research in language acquisition and including provisions for training novice clinicians. Epistemological concerns and discussions of the theoretical nature of transcription appear to be absent from the applied and professional literatures, however.

CONCLUSION

In this conceptual review of theoretical and methodological transcription issues in basic and applied research and in professional practice across a wide range of disciplines and fields, we have identified a number of key concerns. Whether researchers or practitioners are gathering language data for analysis to advance theory about language itself or for other purposes, such as for diagnosis and therapeutic planning in clinical settings, or as a tool for accessing people's beliefs and knowledge to guide policy development, they must make reasoned decisions about what part transcription will play in the methodology. This includes whether to include transcription as a step, how to ensure rigor in the transcription process and reporting of results, and heuristics and cautions for analyzing and drawing interpretations from the taped and transcribed data. As we have seen, researchers and practitioners require flexible approaches to transcription to suit their different purposes; therefore, a quest for one standard set of conventions is not likely to satisfy all, and it is not theoretically tenable.

Some of the methodological issues surrounding transcription reflect deeper underlying theoretical positions. We have argued that transcription is inherently theory laden. Although this is considered a truism by some theorists, other theorists disagree (cf. Du Bois et al., 1993), and the point appears to have not even been addressed in the applied and professional literatures. Writers on transcription have pointed to the understanding that transcription *represents* an audiotaped or videotaped record, and the record itself *represents* an interactive event. Acknowledging transcription as representational avoids the mistake of taking the written record as the event and opens the transcription process for examination of its trustworthiness as an interpretive act.

Yet, this process of representation is not straightforward. As Kvale (1996) remarks, the translation of spoken discourse into a written genre of text is problematic, especially when the written text is reified or privileged (Denzin, 1995; Poland, 1995). A transcript is an interpretation (Mishler, 1991) that is constructed as a new, original text by the researcher (Denzin, 1995). There is a need to examine empirically how researchers create or coconstruct representations and how these representations follow from their purposes or working theories as well as their positionality and ultimately constrain the kinds of interpretations that they can derive from their data.

However, empirical examination of transcription processes, products, and their implications is singularly lacking in the research literature (exceptions are Lapadat & Lindsay, 1998; Mishler, 1991; and Poland, 1995). For the most part, transcription issues are not addressed in discussions of qualitative methodology or acknowledged in reports of empirical studies employing TTCI methodologies with language data. Although some theoretical exami-

nations of the role of transcription have appeared in the disciplines that use transcription for basic research, these have been limited to each particular discipline rather than being cross-disciplinary in scope. Applied researchers and practitioners especially have limited their focus to whether and how to use transcription as a practical tool, giving little attention to theoretical issues or to empirical examinations of its trustworthiness. Just as explicit discussion of transcription processes is largely absent in the research and theoretical literatures, it seldom appears as a topic of consideration in the education of future researchers and practitioners who will be employing transcription in their work (however, see J. A. Edwards & Lampert, 1993; Hughes et al., 1997; Lapadat & Lindsay, 1998; Retherford, 1993).

As Kvale (1996) and others have pointed out, the role of transcription is problematic both theoretically and methodologically, not transparent as was originally assumed. Researchers' and practitioners' insufficient attention to transcription's role in analysis and to establishing criteria to enhance methodological rigor (Poland, 1995) might be a consequence of early, modernistic assumptions about the transparency of language generally. This perspective on language, the pursuit of objectivity, and the assumption that empirical data are impervious to representational effects (such as perspective, role, and voice) are inherent in a positivistic stance. The primary difficulties surrounding transcription as a methodology have to do with the "big questions" about the nature of reality and how to represent it, the relationships between talk and meaning, and the place of the researcher in this interpretive process. Transcription has been employed in a number of different disciplines for various research purposes, each placing different demands on the methodology; yet, the largely unexamined presupposition that a transcript provides a one-to-one match with the "reality" of the communicative event and the quest for standard conventions have obscured the understanding of transcription as an interpretive act and its inherent flexibility within the research process.

Unlike Kvale (1996), we believe that the problematic issues cannot be avoided simply by omitting the step of transcription. The hard work of interpretation still needs to be done. Researchers across disciplines for many years have found transcription to be an important component of the analysis process. We want to emphasize that it is not just the transcription product—those verbatim words written down—that is important; it is also the process that is valuable. Analysis takes place and understandings are derived through the process of constructing a transcript by listening and re-listening, viewing and re-viewing. We think that transcription facilitates the close attention and the interpretive thinking that is needed to make sense of the data. It is our contention that transcription as a theory-laden component of qualitative analysis warrants closer examination.

NOTES

1. However, Schegloff (1992), who founded the field of conversation analysis (CA) with Sacks and Jefferson (Goodwin & Duranti, 1992; Watson, 1994), points out that CA does not impose rules, but rather, analyses are "built to accommodate the data" (p. 224). Furthermore, Schegloff's (1987, 1992, 1997) rationale for focusing on talk as constructed in action, rather than on other contextual information of interest to the analyst, is that the coconstruction of conversation by the interlocuters reveals the contexts relevant to them and thus endogenously grounds the analysis.

2. The topic of context and how it is approached in CA is an interesting one that we can only touch on here with respect to implications for transcription. We refer the interested reader to Duranti and Goodwin's (1992) edited collection of articles on context as seen from various analytical traditions, as well as to Schegloff (1992, 1997) and D. Edwards and Potter (1992).

3. Schegloff (1992) agrees that talk is contextual but, as discussed earlier, considers only those contexts made visible within the conversational sequences to be the relevant ones.

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