

Addressing the Third Law of Gardening: Methodological Alternatives in Aphasiology

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Over the past decade, numerous calls have been made for a greater understanding of the dynamics of authentic communication and naturalistic interaction from the perspective of individuals with aphasia (Holland, 1982, 1983, 1991; Klippi, 1990; Lyon, 1992; Milroy & Perkins, 1992). This issue has been addressed repeatedly in previous volumes of *Clinical Aphasiology*. In 1989, Kimbarow called for research on the dynamic aspects of communication in real-life situations, and this call for more naturalistic research has continued (Coelho, Liles, Duffy, & Clarkson, 1993; Shadden, Burnette, Eikenberry, & DiBrezzo, 1991; Yorkston, Zeches, Farrier, & Uomoto, 1993).

As professionals, we recognize the need to understand the authentic abilities of individuals with aphasia in real and natural settings. Such data are necessary if we are to effectively meet the needs of our aphasic patients and our ethical responsibilities as rehabilitationists (Lyon, 1992). Until we come to a greater understanding of how aphasia affects communication in naturalistic contexts, we cannot be certain that our efforts are efficacious.

Because of this pressing need to know more in authentic contexts and tasks, a number of researchers have focused on communication and discourse in individuals with aphasia. These studies have concentrated on the effects of aphasic impairment from a more interactive perspective than is typical (Armstrong, 1991; Copeland, 1989; Holland, 1991; Milroy & Perkins, 1992; Penn & Becham, 1992) or on the discourse effects of aphasia in limited interactional contexts (Bates, Hamby, & Zurif, 1983; Coelho, Liles, & Duffy, 1988; Ernest-Baron, Brookshire, & Nicholas, 1987; Ulatowska & Bond, 1983; Ulatowska, Haynes, Hildebrand, & Richardson, 1977). Although these studies have increased

our understanding of communication and its interaction with impairment due to aphasia, they have not provided us with sufficient data on the dynamic communicative aspects in contextually complex and authentic settings. Working with discourse tasks that are contextually constrained and experimentally controlled does not address true communicative interactions. While valuable, these studies and their implications can go only so far.

METHODOLOGICAL CONCERNS

The primary reason that these studies and their results are limited appears to be due to the types of methodological approaches (e.g., focusing on limited studies of narrative discourse) that have been embraced in aphasia research over the last 40 years. Although these more traditional methodological approaches have many advantages and are effective when addressing a number of research questions, they appear to be insufficient when studying authentic discourse (Damico, 1993; Milroy, 1987; Simmons, 1993). The problem is that when researchers try to understand the complexity of authentic discourse by using traditional methodologies, they run into a number of methodological barriers. For example, in trying to control "extraneous" variables, the important contextual features that influence discourse structure and timing are eliminated. This issue has been addressed repeatedly in the literature (e.g., Oller, 1979; Seliger, 1982; Shohamy & Reves, 1985).

Indeed, when we have tried to design traditional experimental studies to investigate authentic communication, we have always found ourselves unable to do so. We are reminded of the "third law of gardening": "If nobody uses it, there's a reason." It is simply too hard to mesh the need for experimental control over tasks and over numerous contextual variables with the requirement for authenticity of the data collected and analyzed, given our current methodological tools. When we use these tools, our "naturalistic" research is too constrained and not genuine. As with a short-handled hoe or a dull swing-blade in the garden, our current methodological tools for investigating discourse are not sufficient for the job and they hinder rather than assist the process.

AN ALTERNATIVE PROPOSAL

This paper suggests a set of alternative methodological procedures that will enable us to overcome the third law of gardening from a

research perspective. We propose that something else is needed when focusing on authentic discourse. We need more aggressive and wide-open research approaches that we can use to directly investigate conversational interaction in all of its complexity.

Fortunately, there are methodological alternatives to our traditional research techniques and strategies that will be more effective when focusing on aphasia in natural contexts. Excellent studies have been done in the areas of general ethnography (Agar, 1986; Morgan, 1987; Spradley, 1979, 1980), ethnography of communication (Bauman & Sherzer, 1989; Duranti, 1985), conversational analysis (Atkinson & Heritage, 1984; Button & Lee, 1987; Duranti & Goodwin, 1992; Schiffrin, 1987), and sociolinguistics (Milroy, 1987) that demonstrate methodological tools and analytic devices that can be systematically and productively applied to the study of aphasic discourse in real settings.

Based on work gleaned from these fields and from our own qualitative research efforts (e.g., Damico, 1993; Damico & Housewright, 1992; Damico & Schweitzer, 1991; Simmons, 1993), we wish to offer the following five alternative guidelines for research aimed at discourse in individuals with aphasia.

Focus Attention on Actual Behaviors in Real-Life Settings

If we are to sustain the naturalness of the data, we must focus attention on actual behaviors in real-life settings. To understand real and natural discourse, one needs to investigate real and natural discourse. Taking our cues from ethnography, we should become field workers to a greater extent. When studying discourse, we need to adopt data collection procedures that enable us to collect data as the individuals with aphasia are attempting to communicate in real-life situations. We should strive to make certain that the data that we collect and analyze are meaning based, contextually embedded, and temporally constrained (Oller, 1979). This can be accomplished by employing the data collection strategies of ethnographic field-researchers (Hammersley & Atkinson, 1983; Spradley, 1980). These include ethnographic interviewing, participant observation, artifactual examination, archival documentation, video and/or audio recording, and focus group interviewing.

Our experience with these data collection strategies in various studies focusing on a wide range of communicatively impaired populations (e.g., Damico & Housewright, 1992; Damico & Schweitzer, 1991; Simmons, 1993) convinces us that we need not be limited to the study of discourse using contrived tasks in constrained situations.

Describe and Strive to Understand the Complexity of the Context Within Which the Data Are Embedded

Although there have been many discussions regarding context and its complexity, we cannot overstate the importance of context in the study of discourse. To truly understand discourse, we must be prepared to account for many aspects of context both during data collection and during analysis of data. Indeed, Cicourel (1974, 1980) demonstrated repeatedly that it typically is not possible to interpret conversational interactions appropriately without background knowledge that extends far beyond the talk being analyzed or its immediate setting. Starting with Hymes's (1972) SPEAKING model that focused on numerous contextual features, and evolving to elaborate ways of accounting for the setting, the behavioral environment, language as context, and the extrasituational context (Goodwin & Duranti, 1992), ethnographers and conversational analysts have designed a number of ways to describe and address context.

Generally, three strategies need to be employed when accounting for context:

1. *Approach context from the perspective of the participants.* This is the only way that proper and appropriate interpretation can occur. Because individuals create their own agendas and objectives, and attempt to accomplish them through their communications and interactions within their contexts, it is essential that the researcher use these data and these perspectives during interpretation. The appropriate perspective-taking can be accomplished through ethnographic interviewing (Agar, 1986; Spradley, 1979) and focus groups (Morgan, 1987).
2. *Tie the analysis of context to the indigenous activities that the participants use to organize their social worlds.* One's context and its significance is formed and utilized within that individual's culture and sphere of experience. To understand it, we need to take participants' social worlds into account. This is similar to perspective-taking except that we need to collect background information on the individuals and their contexts in order to create the appropriate linkages between their objectives and their social contexts.
3. *Recognize that there are multiple contexts which are capable of rapid and dynamic change.* Various contexts involve different goals, different participants, changing participant roles, and different speaking styles or codes that are actively manipulated in ongoing conversation. This fact has been demonstrated by

Goffman (1967, 1974), Schiffrin (1987), and many others (see Duranti & Goodwin, 1992). Especially in conversation, the goals and the contexts change according to the whims and objectives of either or both participants. Researchers need to be flexible enough to recognize this dynamic quality of conversation and describe it when necessary. A characteristic of conversational analysis and ethnography is that both research disciplines have an inherent flexibility to adjust to this dynamic change.

These three strategies can be accomplished using methodologies taken from ethnography and conversational analysis. These disciplines possess the descriptive power, the flexibility, and the perspective-taking characteristic required to describe context in all its richness (Duranti & Goodwin, 1992; Hymes, 1972).

Embrace Systematic Data Collection Procedures that Ensure the Authenticity of the Data

In ethnography, authenticity of the data collected is ensured by following five basic data collection principles:

1. *Collect data from a full range of events.* The researcher needs to obtain a wide range of discourse behaviors from the individual with aphasia across a number of different contexts. To some extent, this will ensure that the researcher collects data that is representative of the individual's communicative abilities and strategies. In effect, this helps prevent a sampling problem.
2. *Collect the data from recurrent instances of the full range of events.* To prevent a sampling error and to ensure representativeness, it is important that more than singular instances of these communicative events be collected. The ethnographic literature contains guidelines and discussions of how much data are needed to adhere to these data collection principles (e.g., Agar, 1986; Morgan, 1987; Spradley, 1980).
3. *When collecting data, look at the events at different levels in the social or cultural system.* This guideline refers to the types of behaviors the researcher uses as data. For example, Agar (1986) referred to *first-level behaviors* as those that are a part of the informant's routine and overt behaviors. *Second-level behaviors* include the informant's discourse about the first-level behaviors, whereas *third-level behaviors* involve discourse about the

second-level behaviors. In our research on compensatory behaviors in individuals with aphasia (Simmons, 1993), our direct analysis of videotaped conversations represented some of our first-level data, whereas our ethnographic interviews with the individuals with aphasia and their family members about their interactions represented our second-level data. Our third level of data collection included a speech-language pathologist focus group that discussed the videotapes and the ethnographic interviews. If the researcher collects data at two or more of these levels, there is an opportunity for others to comment on the representativeness and the authenticity of the data that the researcher has collected and analyzed.

4. *Use several data collection strategies.* It is beneficial to collect data with a combination of strategies. Doing so typically decreases observer and measurement bias and enables the researcher to collect different types and levels of data in the same contexts. A number of data collection strategies have been listed in the prior section on the complexity of content.
5. *Triangulate the data sources.* As discussed by Geertz (1973), Hammersley and Atkinson (1983), and Spradley (1980), it is important to combine and triangulate the data obtained after following the first four data collection principles. This helps ensure that the data collected are not merely accidental or meaningless behaviors. Using these principles, one can collect a wide range of data across time and settings and at different procedural levels. Once the data are triangulated, the researcher can be fairly certain that the analyzed data are real and authentic.

Utilize Systematic Qualitative Analysis When Analyzing Data

Due to the influence of Geertz (1973) and others (Agar, 1986; Goffman, 1974; Gumperz, 1982; Spradley, 1980), qualitative researchers have developed very powerful analysis procedures and analytic units that are designed to carefully analyze the data collected to arrive at deeper understandings. Geertz (1973) stated that analysis of the data should enable us to move toward a "thick description" of the data. By that, he meant that researchers should take the behavioral phenomenon being investigated and not only create a rich description of the behavioral event, but also a rich understanding of why that event occurred.

In terms of ethnographic analysis procedures, we have found the work of Spradley (1980) and his Developmental Research Sequence (DRS) to be very effective. The DRS is an elaborately described approach to data collection and analysis that presents a series of research tasks that should be carried out in a particular sequence when conducting qualitative/interpretive research. Although it is not the only approach that can be used, it is an effective approach when first initiating qualitative/interpretive research. The DRS emphasizes the cyclical nature of interpretive research wherein the processes of data collection and analysis are conducted almost simultaneously so that the interpretation affects the further data collection activities. We have used his set of analyses (domain analysis, taxonomic analysis, componential analysis, and theme analysis) to reach a greater understanding of the establishment and use of compensatory behaviors in individuals with aphasia (Simmons, 1993). Spradley's (1980) procedures and those of others (Agar, 1986; Morgan, 1987) hold promise in the study of aphasic behavior.

Similarly, many effective analytic devices have been developed by conversational analysts that have great potential for aphasia research efforts. The work of Gumperz (1982) and his contextualization cues is one example. These cues are analytic units developed to help account for how participants in a conversation use verbal and nonverbal signs to relate what is said at any one time and in any one place to knowledge acquired through past experience. By using these cues, a speaker or listener can retrieve the presuppositions on which they must rely to maintain conversational involvement and assess what is intended. By using contextualization cues such as prosody, paralinguistic sign, code choice, and choice of lexical forms or formulaic expressions, the conversational participants can highlight or make salient certain phonological or lexical strings so that additional meaning other than what is coded in the grammatical systems is advanced.

Attentional Tracks are another type of analytic unit that can be productively used to study discourse (Goffman, 1967, 1974). In any social encounter, there is always an aspect of the activity that is treated as being relevant to the main business of the encounter while other aspects are less important or not relevant at all. Goffman has created an analytic device known as Attentional Tracks to address what is important and why they are important. Several tracks are important in structuring and understanding conversation: Main-line, Directional, and Disattend. Analysis of conversation using these types of analytic units will allow us to study how conversational interaction is accomplished beyond the eventual sterility of the grammatical system. Each of these systematic analytic devices and numerous others (see Atkinson & Heritage, 1984; Button & Lee, 1987; Schiffrin, 1987) have been designed

to analyze naturalistic conversational data to determine how meaning, interaction, and socialization are truly accomplished. These strategies or tools have great potential for the investigation of aphasic discourse.

Ensure that the Formulated Conclusions Achieve a Coherence with What Happens in the Real World

Because research exists to help us understand the world, it is important that these qualitative research methodologies provide a way to check the results and conclusions in the hard light of reality and future application. Qualitative research offers an alternative approach for specific questions that is as valid and valuable as more quantitative and experimentally oriented research. Both types are able to formulate and address legitimate questions and, contrary to what some traditional researchers believe, qualitative research *does not* exist simply to formulate research questions for more experimentally oriented research agendas.

Like more experimentally oriented researchers engaged in hypothesis-testing, qualitative researchers are just as concerned about the usefulness of research and about "getting things right." These qualitative researchers merely go about this task somewhat differently from their experimentally oriented colleagues. They look for ways to take their results and generate a set of expectations based on what has been found and then to determine if their understanding achieves a coherence with the actual world.

Agar (1986) discussed this type of process within the tradition of ethnographic research. According to Agar, after the initial data collection and analysis, the researcher comes to some understanding or conception of the behavioral phenomenon or issue under investigation. Based on this conception, the researcher then creates a schema for understanding and prediction. The schema must then be verified in some sense. Agar suggested one procedure known as Strip Resolution. Within this process, the researcher takes the formed schema and applies it to one of several types of observed social acts or behaviors, known as strips, and determines if the schema could explain the strip; if not, the schema is revised and the process goes forward again.

Numerous other ways exist to achieve and determine the utility, veracity, and coherence of results (e.g., Agar's anticoherence; see also Geertz, 1973; Hammersley & Atkinson, 1983; Spradley, 1980). Investigation of the writings of qualitative researchers will reveal a number of very rigorous and effective techniques. Most of them can be effectively used in aphasia research.

CONCLUSION

This paper has suggested some alternative methodological approaches that can assist researchers in overcoming some of the current barriers when investigating discourse in individuals with aphasia. This discussion, of course, only scratches the surface of several very productive and exciting research disciplines and how their tools and strategies can benefit clinical aphasiology research. Although our current approaches to discourse research have been effective, these alternatives will add more depth and greater scope to our investigations and knowledge base. To carry forth the initial metaphor, they will help ensure that our toil in the research garden will reap a greater harvest.

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