Discourse Analysis

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Everyone knows that when individuals in the presence of others respond to events, their glances, looks, and postural shifts carry all kinds of implication and meaning. When in these settings words are spoken, then tone of voice, manner of uptake, restarts, and the variously positioned pauses similarly qualify. As does manner of listening. Every adult is wonderfully accomplished in producing all of these effects, and wonderfully perceptive in catching their significance when performed by accessible others. Everywhere and constantly this gestural resource is employed, yet rarely itself is systematically examined. In retelling events — an activity which occupies much of our speaking time — we are forced to sketch in these shadings a little, rendering a few movements and tones into words to do so. In addition to this folk transcription, we can employ discourse theatrics, vivifying the replay with caricaturized reenactments. In both cases, we can rely on our audience to take the part for the whole and cooperatively catch our meaning. Thus, in talk about how individuals acted or will act, we can get by with a small repertoire of alludings and simulations. Fiction writers and stage performers extend these everyday capacities, carrying the ability to reinvoke beyond that possessed by the rest of us.

Erving Goffman (1981: 1–2)

This phase of sign language behavior is of fundamental importance, and to the writers' knowledge has never been mentioned in the literature about American Sign Language. Many teachers and psychological counselors of the deaf who have been fairly successful in learning to make the signs and to fingerspell and read the signing and spelling of deaf pupils and clients, have formed the impression that deaf persons are unresponsive, overly dependent, or lacking in self-reliance. What produced this impression seems to be a number of experiences of this kind: the teacher or counselor asks a question or gives a direction and gets no response but a watchful waiting attitude, often interpreted as the expectation of prompting or of help. But what has really happened in the linguistic situation is that the teacher's or counselor's utterance, correct enough in sign production and order, was followed by the kind of juncture that signals the end of a statement. The watcher is not unresponsive; on the contrary, he is responding perfectly correctly, waiting for the next utterance to follow, which the signer's "out of awareness" signal has told him is coming. When, however, the teacher or counselor holds his [or her] hands fixed in the last position reached in the sig of the ultimate sign or moves them toward the class or client still fixed in the dez configuration, he finds that his question has been perceived as a question and a signed answer or other appropriate answer is the response.

Stokoe et al. (1965: 275–6)

Discourse analysis is an interdisciplinary field of social inquiry that has recently come into its own right. For many years, scholars from a variety of fields including sociology,

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psychology, anthropology, and cognitive science have pursued the study of human behavior in an effort to understand the patterns and rules that result in communicative interaction. Thanks to the work of scholars such as Schiffrin (1994) and van Dijk (1997a; 1997b), the diverse concerns these scholars have brought to their studies of discourse have been categorized and examined with the same scientific lens that has focused on discourse itself.

The first issue to be examined regards the definition of the very behavior that is to be studied. What is discourse? As van Dijk (1997a) points out, the term "discourse" has a variety of meanings, as diverse as the reference to a particular conversation or to broader social arenas, as in the phrase "political discourse." Fortunately, for the linguistic analysis of discourse, the term is at least somewhat constrained. Where linguists generally study language at many levels, from phonology to syntax, analysis of discourse refers to the study of language beyond the level of the grammatical sentence (Stubbs, 1983). In face-to-face interactions, sentences are not marked with capital letters or punctuation marks. One of the tasks of the discourse analyst is to identify the boundaries of units of discourse as it occurs when two or more people communicate. Another task is to determine what "grammatical" rules operate on the joining of these units into a coherent discourse, much like syntacticians study the rules by which grammatical sentences are formed. Discourse analysis distinguishes itself by focusing on language as it is used in real-world situations, regardless of whether the emphasis is on the structure of the discourse and the rules which constrain its construction, the actions accomplished through those constructions, or the contextual information that allows it to be both constructed and understood.

Discourse Structure

Discourse can be examined in light of the rules that govern its organization. This organization can be analyzed regardless of whether the discourse is spoken, written or signed. The structural organization of discourse can be analyzed whether the discourse is monologic (as in lectures and narratives) or dialogic (as in conversations and interviews). The rules that operate on a given discourse can be studied based on whether the discourse is being jointly negotiated (as in face-to-face communication or in computerized chat rooms) or if it is less interactive (as in the pre-taping of a televized speech or the writing of a book).

Examination of the organization of discourse begins with the delineation of units of analysis, or discourse units. According to Schiffrin (1994), unlike the hierarchically structured phonological, morphological and syntactic units to which linguists are accustomed, discourse units do not clearly fit the notion of hierarchies. Discourse units have been described as being as large as entire encounters (see, for example, Schegloff, 1972; Schegloff and Sacks, 1973; Goffman, 1974). They have also been described as being as small as a single turn in conversation (Sacks et al., 1974). Structural analyses of discourse can focus on propositions, reference and cohesion, topic and sub-topic organization, and even style issues. Regardless of the size of the unit of analysis, it is ultimately the examination of an utterance and its relationship to other utterances or types of utterances surrounding it that allow analysts to examine discourse structure.

Discourse Action and Interaction

Discourse can also be studied in terms of the impact it has on people and events. Through the use of a variety of linguistic tools, con-

versants are able to enact or comment upon real-world events. Language can affect social relationships at a macro-level. For example, an utterance such as "I hereby pronounce you husband and wife" is a linguistic behavior that changes social relationships for people from a variety of religious backgrounds. Language also affects interaction at the micro-level. For example, as Tannen (1986) points out, differences in conversational style can cause miscommunication and frustration between friends and family members.

When examining the acts conveyed through language, it can be seen that a single utterance can fulfill a variety of functions, including (but not limited to) requesting information, promising, or asserting. A single utterance can simultaneously fulfill more than one function. For example, uttering "Would you shut the door, please?" is both a question and a request. Likewise, a single function can be conveyed through more than one utterance. By focusing on function, it is possible to gain information about sequential structure mentioned above. For example, if one were heard to utter "Would you shut the door please? It's so cold in here!" then the assertion can be seen in relationship to the request, i.e. as an explanation for it (van Dijk, l997a: 14).

Acts conveyed by discourse can be direct or indirect. The request to close a door can be as direct as "Please shut the door" or as indirect as "Hmm, the door is open again . . ." People use their knowledge of communication to respond appropriately (or inappropriately), with gravity or with humor. Whether or not an utterance conveys a certain intent can be subjective. A speaker might intend to insult an addressee but fails if the addressee does not feel insulted. Conversely, an addressee might feel insulted by an utterance, even though an insult is totally unintended by a speaker. In order to analyze how a particular utterance functions, one could analyze at least four aspects of the utterance:

- what happens just prior to the utterance and what a speaker or signer thinks is true about the addressee's thoughts and abilities;
- what the speaker/signer is thinking or intending;
- what is required in a given language for an utterance to be recognized functionally; and
- what is true about the world as put forth within the utterance.

This is one way of approaching the analysis of what conditions make utterances work between interlocutors. Discourse analysts can study the acts that are explicitly and implicitly conveyed by discourse, and the underlying rules that people bring to the uttering and interpretation of them.

Just as language provides a source for accomplishing certain acts, it is also a primary link allowing people to come together and interact with one another. Language is the behavior through which people communicate, and to do so they must have ways of beginning conversations (and ending them), initiating, maintaining and yielding turns, introducing or shifting topics, being polite (or rude) and, generally, conveying any of the myriad of acts alluded to above (such as insulting, requesting, agreeing, arguing, persuading, etc.). Analysts of discourse also study the ways in which people accomplish these aspects of interaction. If it is possible for a speaker or signer and an addressee to have different feelings about whether or not the addressee has been insulted, then interaction requires some cooperative effort focused on constructing and deconstructing the ideas and thoughts that are intended. That is, conversational partners work together to jointly negotiate their interactions.

This is true regardless of whether the interaction is a casual conversation, an interview for a job or with a medical doctor, or a formal presentation in which the presence or absence of audience laughter and backchanneling causes the presenter to make adjustments to the style and content of the presentation.

Context and Discourse

Unlike the objective principles and laws that govern the physical environment, human interaction is variable. In order to truly understand the structure of discourse, and the social factors that impact upon it, it is necessary to examine the context in which the discourse occurs. Yet, as van Dijk (1997b) points out, context is as difficult a construct to define as is discourse. Nevertheless, there seems to be sonic agreement that, in addition to the information provided by the sequential unfolding of utterances, context incorporates at least three factors. The physical environment includes not only the location in which the interaction is taking place (such as a doctor's office) but also the objects or props and actions that are happening there. A second contextual factor is the background knowledge that participants bring to the interaction. This background knowledge is the information about the world and how people are expected to behave in it. This knowledge has been acquired through natural interaction and through books and other media throughout a participant's lifetime. Finally, the social relationships and the situation in which the interaction takes place represent a third factor providing contextual clues that allow interlocutors to understand and interpret the meaning of the discourse as it unfolds. These factors work together to assist people in producing and interpreting utterances. For example, the response to the greeting below will likely vary, depending on whether it is uttered by a medical doctor in a doctor's office, or by a business associate in the hallway:

A: How are you doing?
B: Fine! How are you?

A: How are you doing?
B: Well, I still have a fever . . . my medicine doesn't seem to be working.

The different interpretations are based on the location of the interaction (conversations are usually short and quick in a hallway vs. a medical office), the background knowledge of participants (that doctors take medical histories and business associates use such statements as greetings) and social context (doctors are responsible for taking care of ailments, while business associates might not be so interested in such personal information). Recognition that context incorporates aspects of the physical environment, background knowledge of participants and social relationship of interlocutors provides an objective framework from which to analyze discourse.

Context is relevant to the analysis of discourse structure because it is through the use of particular expressions and utterances within specific contexts that people can convey and comprehend what is being communicated. The sequential structure of a particular discourse can be seen in terms of the relationship of utterances to the context within which they occur. It is relevant to the functions conveyed by discourse because the social actors, their relationships to one another, their background knowledge and the situation in which they communicate can all impact upon the effect of what is uttered. The utterance "I hereby pronounce you husband and wife" carries a specific function when uttered at a wedding by a preacher or justice of the peace. It cannot carry the same function when uttered in any

other circumstance or by any other type of social actor.

METHODOLOGICAL APPROACHES TO DISCOURSE ANALYSIS

The notion of language as social interaction serves as the basis for the analysis of discourse above the sentence. Nevertheless, there are a variety of theoretical perspectives and methodological approaches that have been applied to the study of discourse. According to Schiffrin (1994), there are six approaches, each influenced by the theories and disciplines that originally motivated them. The six approaches that Schiffrin describes extensively are: speech act theory, interactional sociolinguistics, ethnography of communication, pragmatics, conversation analysis and variation analysis. These approaches have been applied to the study of sign language discourse, and so it is worth summarizing her description of them here.

Speech Act Theory

Speech act theory can be directly attributed to two philosophers, John Austin (1962) and John Searle (1962; 1969). In the mid-1950s, when Austin first discussed the principles of speech act theory, the prevailing philosophical thought about language was to analyze its truth value based on a formal system of logic. Austin, however, noticed that some utterances do not have a truth value, but are intended to accomplish certain functions. For example, to declare "I hereby name this ship the SS Linguistics" allows the smashing of a bottle against the bows of a ship to have meaning. Verbs within an utterance that actually state, or *perform*, the action to take place in particular circumstances are *performative* verbs. For example, a ship is *named* when the appropriate person says it is named, so the act of naming is performed by the uttering of the verb.

Austin divides speech acts into three parts: locutionary, illocutionary, and perlocutionary. The locutionary act refers to the actual process of producing a sensible utterance. The illocutionary act is the performative act that is being carried out. The perlocutionary act is the effect that the utterance has by having been uttered. These three together make up the speech act of an utterance. Searle applied Austin's work within linguistic theory and developed a set of rules that he felt are unconsciously learned by users of a language to determine what an utterance is intended to accomplish and whether or not it has been accomplished effectively.

Speech act theory was originated philosophically and developed theoretically. However, despite the fact that the theory does not focus on issues such as multiple speakers and overlaps so common in interactive discourse, its fundamental principles are extremely useful. A single utterance can incorporate more than one speech act. Similarly, a single speech act might involve more than one utterance (or more than one turn in a conversation) (Schiffrin, 1987: 33). The act or actions intended to be undertaken by an utterance may be indirect and veiled. For instance, a speaker might state a request directly as in "Please close the door" or indirectly as in "It sure is cold in here!" Examination of directness and indirectness within utterances can provide useful information about languages and social interaction. For example, Tannen (1986) discusses how conversational style can vary based on factors such as regional background or gender, and can have a tremendous impact on people's daily lives, even making or breaking personal relationships. Speech act theory provides a systematic approach to analyzing the functions of utterances in discourse.

Despite the use of the term "speech," speech act theory is not limited to the study

of spoken languages. Native users of sign languages, like those of any language, use language to perform such acts as asking, requesting, offering, threatening, advising, etc. Although very little research directly applies speech act theory to sign language discourse, Celo (1996) applies this theory to Italian Sign Language (LIS) and the use of interrogatives, and Roush (1999) to indirectness in ASL. In his examination of the syntactic and pragmatic aspects of *wh*-questions and *yes-no* questions, Celo finds that there is at least one performative sign in LIS that can be used to indicate interrogative intention for *yes-no* questions. This manual sign is produced with a flat O handshape. This handshape is articulated either in front of the signer or on the back of the other hand (palm downward). There is no translation for this sign in Italian, but Celo suggests it functions much like the upside-down question mark at the beginning of written Spanish questions. In a similar way to the question mark in written Spanish, the interrogative sign is produced at the beginning and end of the signed LIS interrogative.

In his study of requests and refusals, Roush examines speech acts in terms of politeness and conversational style. The application of speech act theory provides a framework for Roush to challenge a stereotype about directness within the American Deaf community. Interestingly, both Celo and Roush find that non-manual signals play an important role in the analysis of illocutionary and perlocutionary force in sign languages.

Interactional Sociolinguistics

While speech act theory offers a philosophical approach to the study of discourse, anthropology and sociology combine with linguistic theory to provide the interdisciplinary background for the approach Schiffrin (1994) identities as interactional sociolinguistics. Sociologist Erving Goffman provides the sociological perspective. In his extensive work he focuses on both the ritual and systematic nature of interaction, and how this interacts with specific interactive events. For example, in his work he applies the observations of Bateson (1972) regarding animal interaction to humans. Bateson observes that monkeys are able to engage in what is seemingly identical behavior (such as fighting), but can determine when that behavior is intended as playful or serious. Goffman discusses this ability to frame behavior in human interaction. Linguists then apply his analysis of how interaction is framed and how people frame their relationships to one another through their discourse.

Gumperz contributes an anthropological perspective. Like Goffman, he focuses on both the impact of society and the individual on a given encounter. Gumperz' work examines the ways an individual interprets an interaction. He describes a variety of contextualization cues that can be used as conversational strategies to aid in the interpretation of discourse within a particular interaction; these are based on the specific individuals who are present, and their cultural and subcultural backgrounds.

Because interactional sociolinguistics is focused on interpretations that are unique to a given encounter, the data are based on naturally occurring interactions. These data are recorded and transcribed, as a basis for analysis. A growing body of research on sign languages has applied this theoretical framework, including the work of:

- Mather (1987; 1989; 1990; 1994) regarding adult–child interaction;
- Mather (1991) as applied to tty (teletypewriter, a text telephone device) telephone conversations between deaf interlocutors;

- Winston (1991; 1992; 1993; 1995) as applied to the use of space in ASL monologic discourse; and
- Roy (1989a) and Metzger (1995; 1999) as applied to interpreted discourse.

These studies are addressed later in this chapter.

Ethnography of Communication

Perhaps in keeping with its anthropological foundation, the ethnography of communication is one of the broader approaches to discourse. According to Schiffrin (1994: 137)

> Not only does it focus upon a wider range of communicative behaviors than the other approaches, but built into its theory and methodology is an intentional openness to discovery of the variety of forms and functions available for communication, and to the way such forms and functions are part of different ways of life.

Developed by Dell Hymes (1972), the ethnography of communication includes both the notion of speech acts and the role of macro-level social, specifically cultural, experience in communication. Hymes refers to the knowledge that an individual brings to interaction regarding language use and structure as his or her "communicative competence." This communicative competence focuses on the ability to communicate in the situations of daily life. He contextualizes speech acts by associating them, in a given analysis, with the situation and event in which they occur. Data are collected via the ethnographic participant observation engaged in by anthropologists, and analysis is focused specifically by a set of issues identified as relevant by Hymes (1972) in his SPEAKING grid:

S setting/scene
P participants
E ends
A act sequence
K key
I instrumentalities
N norms of interaction and interpretation
G genre

This taxonomy assists in the analysis of the three units that Hymes deems essential:

- the speech situation, e.g. a medical encounter;
- the speech event, e.g. the medical history interview; and
- the speech act, e.g. a question.

By utilizing Hymes' taxonomy, analysis of discourse ethnographically yields a completely different perspective than other approaches to the analysis of discourse. This is because the ethnography of communication takes into account the participants in the interaction, their goals and the setting in which the discourse takes place.

The ethnography of communication as an approach to the study of signed discourse has been applied in a variety of studies, such as Erting (1982; 1994) and Ramsey (1997) in their examinations of the educational experiences of deaf children. Erting (1982; 1994) and Johnson and Erting (1989) examine the role of social identity in the interaction of deaf and hearing adults and children in a preschool for deaf children. The ethnographic approach to this research results in the recognition that, for at least some deaf people, their sense of identity is comparable to that of many ethnic groups, and that this sense of identity is the natural outcome of the use of a visual language in a visually-oriented cultural environment. This realization is found to have implications when hearing, non-native signers of ASL attempt simultaneously to sign and speak (or to use

sign-supported speech, SSS) and end up producing a visually-incomplete or inaccurate utterance when comparing the signed portion of the utterance to the spoken one. This clearly has ramifications for the training and assessment of preschool teachers.

Ramsey (1997) finds, through her year long ethnographic study, that the public school mainstream class she examines does not provide the deaf children with an educational experience that is equitable to that provided to the hearing students. Interestingly, her findings indicate that this inequity is neither the result of malice nor apathy. That is, it is in spite of very good intentions (or, perhaps, because of them?) that the students receive an educational experience that is less than that of their hearing peers. Her study emphasizes the importance of focusing on the goals of education and development for deaf children as the priority within their classrooms.

Pragmatics

Pragmatics as a subfield within linguistics is so broad that it very nearly defies definition (Levinson, 1983). Generally, pragmatics distinguishes the meaning of utterances in interaction from their literal and conventional semantic meanings. Specifically, Schiffrin (1994) identifies Gricean pragmatics as a describable pragmatic approach to the analysis of discourse. H.P. Grice (1957; 1968; 1975) is attributed with two major contributions to the field of pragmatics. First, he analyzed "speaker meaning" (as opposed to "semantic meaning") and, therefore, raised the issue that an utterance can be made with a certain intent that could differ from the seemingly obvious conventional sense of the words. Second, he developed a description of the "Cooperative Principle" to account for the ways in which conversants take advantage of the expectation of conversational cooperation in order to try to satisfy their interactive goals. The cooperative principle essentially consists of four maxims regarding the quality, quantity, relevance and manner of utterances in a conversation. That is, conversational partners can generally be expected to share information, in a polite manner that is factually correct, relevant and sufficient for the addressee's knowledge. Because of the underlying expectation for cooperation, conversationalists can flout the maxims. For example, if a child is concerned about his or her parents' reaction to a bad grade at school, he or she might respond as follows:

Mother: So, did you get your exam back today? How did you do?

Child: Oh, no, we didn't get our grades back this afternoon.

In this example, the child's utterance flouts only one of the four maxims in the Cooperative Principle: the maxim of quantity. His response is polite, relevant to the question, and factually correct, but does not include sufficient information for his mother: the exams were returned in the morning, not the afternoon. The child takes advantage of the expectation that what he says is enough information in order to conclude answers to the mother's requests for information. Any of the maxims of the cooperative principle can be flouted, and examples of it abound in many arenas, particularly in humor and advertising. Analysis of conversation provides insights into why people infer what an utterance — or a sequence of utterances — means.

Perhaps because of its roots in philosophy, Gricean pragmatics accepts constructed sentences in imagined real-world contexts as data. However, Schiffrin (1994) suggests that to apply Gricean pragmatics to the study of discourse, it is necessary to apply

it to utterances from real-world interactions. In fact, in her own sample analysis, she focuses on the questions Grice addresses regarding how people infer meaning by analyzing referring sequences within a spoken English narrative. She suggests that the application of Gricean pragmatics to the analysis of discourse helps in the examination of how addressees use discourse to infer what a speaker means. While listening to a pronoun in English, an addressee might depend on the maxim of relevance to infer the identity of the intended referent.

Although the number of analyses of pragmatics in sign language discourse is somewhat limited, there have been studies that incorporate issues related to Gricean pragmatics. For example, Johnson (1994) and Paine and Johnson (in preparation) examine the role of first-time and second-time fingerspelled words in ASL discourse. This builds on Schiffrin's (1994) analysis of referring terms, and on the relevance of explicit vs. inexplicit reference. Johnson (1994) and Patrie and Johnson (in preparation) find that signers are often more explicit or clear in the articulation of first-time fingerspelled words. Since the phonological production of a fingerspelled word can convey a more or less explicit referring term, an addressee can use that information to assist him or her in interpreting the signer's intended meaning. That is, by recognizing that a fingerspelled word is articulated in a certain way, the addressee can identify that referring term as being a first-mention or as referring back to a previously mentioned referent. This kind of observation and analysis is exactly what pragmatic analysis of discourse is intended to uncover.

Roush (1999) examines the role of politeness in directness and indirectness in ASL, supporting Schiffrin's (1994) contention that politeness as referred to in the cooperative principle is culturally defined. Roush finds that ASL signers in conversation use both manual and non-manual signs to mitigate what might otherwise be construed as direct and even rude utterances. His research counters the previous perception of deaf Americans as being direct and rude. The application of a pragmatic approach to the analysis of a sign language provides useful information about how addressees can infer the intended meaning of a signer. In the two studies described here, it can be seen that two aspects of sign languages that are distinct from spoken language discourse — fingerspelling and non-manual signals — can play an important role in the pragmatics of signed discourse.

Conversation Analysis

Harold Garfinkel's ethnomethodology (1967; 1974) provides the sociological foundation for the work of conversation analysts such as Sacks, Schegloff, and Jefferson. Like some other approaches to the study of discourse, conversation analysis is concerned with both the structure of interaction and the knowledge that participants bring to it in order to communicate and understand one another effectively. However, conversation analysis is much more focused on the structural sequences within conversation. For example, the locus of analysis is on the description of events within a conversation, such as the opening up of the last phase of a conversation. In this sense, conversation analysis is less likely than other approaches to dwell on the competence of the participants. The focus is more on structural aspects of the conversation (which in turn reflect participants' knowledge and linguistic competence).

Schegloff (1972) and Schegloff and Sacks (1973) note that one event common in conversational discourse is the use of an utterance which requires a second part or a response of some sort to fill a next-position

slot. Such "adjacency pairs" account for numerous aspects of interaction, including the manner in which people negotiate the beginning or ending of a conversation. One form of adjacency pair is the "summons–answer" sequence found in spoken telephone conversations (Schegloff, 1972). Adjacency pairs are found in greetings and also in conversational closings (Schegloff and Sacks, 1973). They provide evidence of the relationship between context and language use. That is, it is possible for contextual events, such as the flashing light of a telephone tty ringing, to provide the first part of a summons–answer sequence. In spoken language studies, this accounts for the seemingly three-part greeting exchange found in telephone conversations:

"Hello?"
"Hi! This is Dawson. How are you?"
"Oh, hi. I was just thinking about you!"

Adjacency pairs can also be used to negotiate the turn exchanges within a conversation. This happens explicitly to signal turn exchanges within a tty conversation, through the use of typed GA (Go ahead).

Recorded conversations and a transcription system are used to capture a conversation and to describe it in a manner that is unbiased about what is relevant. For example, pauses, inbreaths, etc. would all be transcribed by a spoken language conversation analyst. Although there is no conventional transcription system in place for the analysis of sign language following this approach, features that have been included in transcription include head and body movement, eye gaze, facial expression, spatial location of articulators (see Winston, 1993) and even gestures that are not linguistic *per se*, but are part of the gestured communication common to most languages, be they spoken or signed (see Liddell and Metzger, 1998). To gain insights into the relevant structural features, there is generally a preference toward analysis of a larger corpus of data.

This approach to the analysis of discourse can be found in a variety of sign language studies. For example, Dively (1998) applies the work of Schegloff et al. (1977) on conversational repair to the repairs in an ASL interview. Glaser (1999) examines the interaction of the constraints of written text and natural conversational features in tty conversations of an adult member of the British Deaf community. These two studies are discussed later in this chapter.

Variation Analysis

The study of linguistic variation (i.e., alternate ways of saying the same thing) was developed by William Labov. Grounded in linguistics, variation analysis seeks to locate units of discourse that share a meaning, and to determine what social or linguistic factors contribute to the existence of multiple variants. Variation analysis can apply to units of discourse ranging in size from the smallest unit of contrast produced phonetically to entire segments, such as the narrative, which generally occurs within the larger context of interaction. In order to determine the environments in which certain variants occur, it is useful to gather a fairly large corpus of data and conduct quantitative analyses. In addition, when searching for social factors responsible for the variation, it is essential that the data include representation of these factors. That is, the data would include both male and female subjects when examining gender variation.

Lucas (1995) examines the ASL sign DEAF, and the phonological variation of location (chin-to-ear vs. ear-to-chin). She finds that the phonological variation is patterned in terms of the sign and its distribution in discourse (e.g. syntactically). Hoopes et al. (2001) focus on three different studies,

including lexical variation, phonological variation and variation between visual and Tactile ASL. In what is likely the largest study of sociolinguistic variation in a sign language, Lucas et al. (2001) report on phonological, lexical, morphological and syntactic variation in ASL, based on videotaped conversations between native signers from seven locations in the USA, from three different age groups, including both white and African American signers.

FEATURES OF SIGN LANGUAGE DISCOURSE

There are many approaches to and motivations for the analysis of discourse, be it spoken, written or signed. Some research examines situated discourse with a focus on contexts and participants, and on their goals and how they use language to achieve them. Other studies focus on larger patterns of discourse that are identifiable within a particular genre of discourse (such as conversation or narrative) or on a particular language (such as a study of the role of eye gaze in Filipino Sign Language). Still others seek to find universal features of discourse that appear to be common for all languages, such as turntaking in conversational interaction.

Regardless of the motivation, theoretical framework, analytic approach or specific sign language being analyzed, the following sections describe features that researchers have found in their analyses of sign language discourse. The narrative in Figure 5.1 is used to provide examples of these features. This narrative is taken from a multiparty conversation including five deaf native signers of ASL between the ages of 25 and 55 from the American mid-west. The data are used with permission and taken from the study of Sociolinguistic Variation in ASL, conducted by Lucas et al. that has been supported in part by a grant from the National Science Foundation. Transcription is based on that used in the Vista ASL Series Transcription Convention (in Lentz et al., 1988) with a translation into English provided in italics below each line of the narrative. The narrative occurs in the midst of a conversation about the bombing of a federal building in Oklahoma, and focuses on the signer's experience with the moment of silence that was held in respect for the many victims who were killed in that bombing. The narrative begins with the signer explaining that the moment of silence took place a week after the bombing, during a class he was teaching in an interpreter education program.

In this narrative, the signer begins his turn in the middle of the discussion about the bombing event. He takes only about 35 seconds to tell about his experience, but he includes many discourse-level features. The features that will be highlighted and discussed below include:

- the getting, maintenance and yielding of turns (turntaking);
- the occurrence of false starts and repairs within conversation (conversational repair);
- the use of discourse markers to provide information about what has been said or what is coming up next in the discourse (discourse markers);
- the acting out and "speaking for" others when describing events from other times and places (constructing dialogue and action);
- the ways in which people use discourse to coordinate what they say and make it more coherent (cohesion); and
- some of the strategies that are used to involve addressees more intently in what is being uttered (rhythm, rhyme and repetition).

Turntaking

One of the earliest studies of interactive sign language discourse focused on how deaf

AWFUL! PRO-1 THINK
That reminds me of something awful

POSS-1 CLASS IX-loc
that happened in a class of mine.

PRO-1 TEACH INTERPRET TRAIN PROGRAM IX-loc
I teach in an interpreter training program

HAVE TWO STUDENT FROM O-K-A C-I-T-Y IX-loc
and I have two students who are from Oklahoma City.

THAT EXACT ONE WEEK—BOMB ONE WEEK LATER (head nod)
That week—a week after the bombing

ANNOUNCE HAVE TIME TIME-NINE-O'CLOCK IX SILENCE FOR ONE MINUTE. FINE.
we were all told that there was time set aside for a moment of silence, at nine o'clock. Okay . . .

DURING POSS-1 CLASS TIME EIGHT-T-(O) TEN. FINE.
That happened to be during the time I was teaching, since my class met from 8 to 10 o'clock. Okay.

PRO-1—(rs: PRO-3) PRO-3 WANT HONOR. FINE.
I—and they wanted to show respect. Okay.

WELL GET-UP (CL: people standing in semi-circle)
So, everyone stood-up

BE-QUIET. STAND. BE-QUIET . . .
and we were all standing there quietly,

#THEN FEW MINUTE PRO-1 OPEN-EYES THINK ENOUGH TIME. FINISH
then after a few minutes I opened my eyes because I thought it had been enough time and we were done.

PRO-1 CL:9 (eyes look up) (rs: startled) HOLD-IT. SILLY! STUDENT CRY+++
But when I opened my eyes and looked up at the class I was surprised to see someone crying.

LOOK-AT, WOW TOUCH-HEART.
And it really got to me . . .

(rs: IX-loc) FIND POSS-3 SEVERAL FRIENDS DIE PRO-3 (wh)IX-loc TOO
I found out they lost several friends that day.

S-O PRO-3 KNOW SOME PEOPLE IX-loc. WOW LOOK-AT WONDER. TOUCH-HEART WOW
So I had students who actually knew some of the people who died in the bombing. Really made me think!

Fig. 5.1. Narrative from a multiparty conversation including five Deaf native signers of ASL.

Notes: IX – index; loc – location; POSS – possessive; PRO – pronoun; rs – role shift; CL – classifier; # – lexicalized fingerspelling.

interlocutors get and yield turns (Baker, 1977). In order to examine how turntaking happens in discourse, it is necessary to identify relevant points for turn initiation and how these points are marked in the discourse. It can then be better understood why one person appears to have smoothly interjected a point, and why another person seems to be interrupting someone else's turn. Sacks et al. (1974) found in spoken conversations, a point in conversation they identify as the "turn relevance place." It is at that point in the conversation that a set of rules comes into play, governing the coordination of who gets a turn at talk. Turns can be allocated by a current speaker (and accepted or declined), requested by another speaker (and again, accepted by others or not), or the turn relevance place can be bypassed until the next opportunity arises. The identification of such rules is helpful not only in understanding the local organization of conversation, but also in examining what happens when conversations have "problems. That is, interruptions can be identified on the basis of a speaker "violating the rules and attempting to elicit a turn at a place in the discourse that is not a turn relevance place. It is important to recognize, however, that conversational regulation, like any other aspect of discourse, is subject to sociolinguistic factors. It is possible to find that what one speaker considers to be an interruption may be seen by the "interrupter" to be a sign of rapport and interest (Tannen, 1984).

In the narrative in Figure 5.1, the five interlocutors are having a conversation about the bombing of a federal building in Oklahoma City. At the point that the narrative begins, the conversation has focused on how the experience might differ for surviving bomb victims who were stuck in the rubble, depending on whether they were hearing or deaf. After a comment about whether one would be better off hearing or not hearing rescue teams (especially if they were to come very close without making it in time), there is a pause in which all signers have their hands at rest. At this point the signer of the narrative raises his hands to begin, and the other conversants accept his turn in the conversation. This pause is an example of a turn relevance place. The signer took advantage of it and successfully took the floor. In research on sign language discourse, one way of taking the floor is to shift from a position in which the hands are at rest. This turntaking strategy and others were originally described in an early study of turntaking in sign language discourse (Baker, 1977). Baker's study of two videotaped, dyadic conversations examines the signaling of turn initiation, maintenance and shift in ASL. Baker discussed her findings in terms of both signer and addressee behaviors, and found that the majority of these regulators are articulated non-manually in ASL. Other studies have found additional features. These are the features that are discussed below:

- hand movements;
- indexing, touching, waving, tapping;
- postural/head shifts;
- use of eye gaze to or away from addressee;
- changes in pace of signing;
- filling pauses (by holding the preceding sign, furrowing brow, looking up, etc.);
- head nodding and facial expressions (such as smiling, expressing surprise, agreement, etc.);
- changing the size and frequency of head nodding;
- use of palm up or indexing addressee;
- shifting to or from hands at rest;
- repetition of signs.

Some of these features are used to elicit turns, others to continue or to shift turns. Some of these are employed by the signer whose turn it is, others by the addressee.

Baker's taxonomy of turn initiation regulators includes optional attention getting

devices, such as indexing, touching or waving of a hand. Even without tactile initiation regulators or visual initiation regulators, Baker (1977) finds that the movement of a signer's arms out of a rest position is sufficient to mark the beginning of a turn, just as the signer did to initiate the telling of his Oklahoma City Bombing experience. The signer might also lean forward toward the addressee, and usually begins the turn without making eye contact, unless asking a question. Not surprisingly, addressee status is marked by eye gaze toward the signer and a lack of signing. This same eye gate behavior has also been found in other sign languages, such as Filipino Sign Language (FSL) (Martinez, 1993; 1995).

The touching strategy in ASL, discussed in more detail by Baer (199l), can include various kinds of tapping. For example, Baer describes tapping on the top of the shoulder as indicating the request for a turn, as opposed to a tap on the side of the shoulder, which is an indication that the "addressee" is blocking the tapper's view. The weight and frequency of taps on the top of the shoulder convey information about the turn requestor's utterance-to-be, for instance, whether it is urgent or exciting information. Mather (1990) also examines attention getting strategies in ASL and distinguishes between what she terms tactile initiation regulators and visual initiation regulators. Mather and, later, FitzPatrick (1993) and Chen (1993), find that an additional strategy, used with young children, is moving into the line of sight of the addressee to elicit his or her attention. Mather finds this is most effective when the turn initiator waits for the child to settle into the eye contact before beginning the utterance. FitzPatrick finds that a combination of visual and tactile initiators seems to be most effective, when engaged in communication with a group of deaf children.

The signers maintain their turns at propositional boundaries or after brief pauses by maintaining a lack of eye contact, keeping their hands in the signing space (with possible fillers such as furrowing the brow or shaking an index finger slightly) or holding the last sign that was articulated while pausing. In addition, the signer might increase the speed of signs within their discourse. During turn maintenance the addressee maintains eye gaze at the signer, and responds through backchanneling, repetition of some of the signed utterance or indexing the signer after propositions.

Signers mark turn relevance places by making eye contact with the addressee (this has also been found in FSL; Martinez, 1993; 1995), slowing down the speed of their utterance near the end of their turn, returning to a rest position, or eliciting a response from the addressee through one of a variety of behaviors. Ways of eliciting a response include raising a palm with the heel of the hand raised up, indexing the addressee, raising or holding the last sign of a turn, or using other non-manual markers for question forms that indicate the expectation of a response. Addressees mark the desire to get a turn by moving the hands out of a rest position (and also possibly by using the attention getting devices previously mentioned), breaking eye contact from the signer (when the signer makes eye contact with the addressee) or interrupting the signer and repeating the beginning of his or her utterance until the signer makes eye contact and relinquishes the turn. In addition, the addressee might increase the frequency and size of head nodding or indexing the signer, or shift his or her palm to a raised position, palm up.

Baker also mentions that in her data, the use of overlap is different from that in spoken language, where overlaps are temporally relatively short. In more recent research, Thibeault (1993) examines the use of overlap

in a videotaped, dyadic conversation in FSL. Thibeault finds that overlap in the FSL conversation occurs frequently, and that it apparently fulfills two functions. One is related to turntaking, as discussed by Baker, in which one participant uses overlap to "interrupt" the signer in successful attempts to initiate a turn. The other, following Tannen (1954), is the use of overlap as a high-involvement style, in which the signers overlap when they share knowledge of the topic. For example, the addressee overlaps with the signer to bypass the fingerspelling of a familiar name.

Conversational Repair

Regardless of conversational style, every interaction is subject to the possibility of errors in need of repair. In fact, Schegloff et al. (1977) propose that repair is not limited to errors and corrections. They posit that repairs also take other forms, such as word searches when a speaker tries to remember someone's name. In their analysis of the organization of repair in English conversation, Sacks et al. (1974) describe the "repair-initiation opportunity space," a period of conversation lasting three turns and beginning with a trouble source. It is during this period that the speaker can self-initiate a repair, or that a repair can be initiated by another participant. They find that there is a preference for self-repair and describe in great detail what forms repairs take in their English data, and what options there may be regarding which participant completes an initiated repair. As Brown and Levinson (1987) point out, politeness and cooperation in interaction seem to be universal, although how this is accomplished varies culturally. It is quite likely that the preference for self-correction is an issue of politeness and saving face for the person with the floor.

In the Oklahoma City Bombing narrative in Figure 5.1 above, the signer produces at least one self-correction. At the point at which he is describing the announcement about the moment of silence he signs:

THAT EXACT ONE WEEK—BOMB ONE WEEK LATER
(head nod)

That week—a week after the bombing

This self-correction is an example of what Sacks et al. call a replacement repair, in which the words (or signs) are intended to replace a prior utterance. Examples of replacement repairs, and other types of repairs described by Sacks et al., are documented in an ethnographic interview with three deaf ASL signers (Dively, 1998). In addition to replacement repairs, Dively finds examples of self-initiated repair, self-completed repair, other-initiated repair, other-completed repair and word-search repair. She also finds some repair strategies that appear to be unique to sign language discourse. For example, she finds that lexical signs that are independent, free morphemes produced without the use of the hands (nonhanded signs) can be used for repair. One example of a nonhanded sign (NHS) used for repair is NHS-I-WRONG, which can be produced with a brief headshake or with the head moving from one side to the other and then back to neutral (p. 142). Dively also finds that space can be a repair issue in ASL. In one example from her data, the signer referred to her mother on the right side of the signing space. Later in her discourse, she replaced the right side with the left side of the signing space to indicate the same referent. Such a replacement could have been made as a result of the hand producing the remainder of utterances, since two hands can sign simultaneously (p. 157). Dively also finds that the signers use eye gaze and head turns to repair their ASL utterances. For example,

Dively finds that eye gaze down and to the right or left of the signer combined with the turning of the head is used as a self-initiated word-search repair while the signer recalls information, such as the specific date of an event under discussion. Finally, the one type of repair that did not occur in Dively's data is other-initiated repair of ungrammatical utterances. Dively suggests that this is due to the fact that the three participants do not know one another very well. She also suggests that other-initiated repairs of grammaticality are more likely to occur in language learning environments. This is supported by research regarding the use of repair strategies as modeled by ASL teachers during ASL classes.

Strategies identified by Smith (1993) and Johnston (1993) include the ways in which the teacher would rephrase a question in order to assist a student in comprehending: For example, the teacher used a *wh*-question, followed by a more specific request which included lexicalized fingerspelling. When the student still did not understand, the teacher shifted to nonhexicalized fingerspelling and finally to a syntactic rephrasing of the original question (to a *yes-no* form). The teacher also used repetition of the students' lexical or fingerspelled utterances as a point of similarity upon which to build mutual understanding (Johnston, 1993). Smith (1993) suggests that, in this way, the teacher is modeling repair as a discourse strategy, based on students' own linguistic competence and for their future benefit as they become more fluent in the language.

Of the repair strategies identified in these studies, the use of "two-layered staff of utterances" is particularly interesting. By two-layered staff of utterances, Dively refers to the ability of signers to articulate more than one morpheme at the same time. That is, a signer can produce two separate one-handed signs simultaneously, one with the right hand, the other with the left. An example of this can be found in her data, in which one of the signers signs PRO.1 with the right hand while signing WAIT-A-MINUTE-hs-5-body with the left hand (Dively, 1995: 157). More commonly in her study, signers produce a two-handed manual sign concurrent with a nonhanded sign, as when one of the participants in her data signed what she categorizes as a fully lexical nonhanded sign NHS-UNSURE while signing manually DON'T-KNOW (p. 144). Dively calls for more research on the possible use of two-layered staff of utterances in spoken languages, perhaps through the use of spoken utterances combined with gestures such as thumbs up or down.

Discourse Markers

Not surprisingly, the term "discourse markers" refers to units of discourse that mark or bracket segments of talking or signing. Schiffrin (1957) studies discourse markers as they occur in spoken English conversations, where they serve the speakers and addressees in producing and understanding interaction. She finds that discourse markers fulfill a variety of functions related to the exchange structure, the conveyance of actions, and framing the relationship between participants. Discourse markers help to connect sequences of utterances. For example, *and* joins two clauses by linking both prior and upcoming text, and *but* offers contrast between them (see also Tannen, 1993). In this manner, then, Schiffrin suggests that discourse markers coordinate discourse and provide coherence.

Discourse markers are not, however, limited to conversational discourse. For example, the use of *and* and *and then* in English narratives can be to sequence the description of events within the story:

1. **And then** we lived there for five years.
2. **and** we bought—we bought a triplex across the street.
3. **And** by that time we had two kids,
4. **and** we moved on the first floor,
5. **and** rented out the second.

(Schiffrin, 1987: 39)

In the Oklahoma City Bombing narrative, the signer also uses discourse markers to sequence the events that take place within his ASL narrative:

THAT EXACT ONE WEEK—BOMB ONE WEEK LATER (head nod)

That week—a week after the bombing

ANNOUNCE HAVE TIME TIME-NINE-O'CLOCK IX SILENCE FOR ONE MINUTE. **FINE**.

we were all told that there was time set aside for a moment of silence, at nine o'clock. Okay . . .

DURING POSS-1 CLASS TIME EIGHT-T-(O) TEN. **FINE**.

That happened to be during the time I was teaching, since my class met from 8 to 10 o'clock. Okay.

PRO-1—(rs: PRO-3) PRO-3 WANT HONOR. **FINE**.

I—and they wanted to show respect. Okay.

In his narrative, the signer uses the sign FINE (produced with an open five handshape tapping on the signer's chest) to separate the events that lead up to his discovery that he teaches students who knew some of the victims killed in the bombing.

In an analysis of an ASL lecture, Roy (1989b) examines the role of discourse markers that segment the introductory, developmental and closing episodes. Similar to Schiffrin's (1987) findings regarding English markers of discourse, Roy finds that a single sign can have more than one function within the lecture. For example, she finds the sign NOW is used to convey temporal significance in the real world, as well as to mark temporally the beginning of topics or shifts to sub-topics within the lecture. She also observes use of a marker NOW-THAT, incorporating a one-handed sign for NOW with the other hand signing THAT, as in "that is the one I am talking about" (for a discussion of different signs that have been glossed as THAT, see Liddell, 1980). In the ASL lecture, NOW-THAT marks openings of new episodes while also referring back to a prior comment (as in "I am referring to that one"). While Roy finds several discourse markers that appear in gloss form to be similar to other languages (such as English *ok*, *anyway* and *know*), she also finds other markers, such as NOW-THAT (a two-handed sign produced in front of the body with a downward movement, with one Y-handshape palm up and the other palm down) and ON-TO-THE-NEXT-PART, that are clearly unique to ASL.

In a study of quotations and asides in ASL, Locker McKee (1992) finds the use of two lexical discourse markers: STOP (signed with the 5-handshape, palm facing forward away from the signer) and INDEX-HOLD. She also finds that the signer uses spatial location to mark aspects of discourse, such as marking an aside deviating from the main lecture by physically leaning or stepping to the side.

The study of discourse markers in sign languages indicates that, as in spoken languages, discourse markers in sign languages function to both bracket and link segments of discourse. Discourse markers in sign languages occur manually, non-manually and spatially.

Constructing Dialogue and Action

Varying accounts of the referential use of space exist, and these have evolved over time. Liddell (1980) and Winston (1991) have used the term "pantomime" as a descriptor for this aspect of discourse. While there have been many grammatical ac-

counts of this spatial aspect of sign language discourse, many researchers describe the referential use of space as a pragmatic and discourse-level, rather than a grammatical, phenomenon (these include DeMatteo, 1977; Roy, l989b; Winston, 1991; 1992: Liddell, 1995; Metzger, 1995; van Hoek, 1992; 1996; Liddell and Metzger, 1998). In particular, Roy (1989) follows Tannen (1989) and her observation that reported speech in discourse is seldom really a true report. Tannen suggests that speakers construct the dialogue of those in their stories, even dialogue originating from real conversations, adapting the discourse so that it fits appropriately the new social context, participants and the point that they hope to convey. For example, Tannen (1989), in her taxonomy of constructed dialogue, describes 10 different types. One type is choral dialogue in which the discourse represents the dialogue of many people — as in "And then all the Americans said, "Oh, in that case, go ahead" (Tannen, 1989: 113). Another is the dialogue of non-human speakers — as when, in speaking for a cat, someone utters, "She says, 'I see a beautiful world just waiting for me'" (p. 118). In both of these cases, it is clear that the construction of discourse for others is not truly a representation of what was said, since rarely would one find a group of people uttering an identical sentence simultaneously, nor do we expect to hear speech from a cat.

Roy (1989b), Winston (1991; 1992), Metzger (1995) and Liddell and Metzger (1998) examine aspects of constructed dialogue in ASL, finding that, in sign language discourse, actions as well as discourse are constructed in narratives. Winston (1992) describes the construction of action and dialogue by signers as "performatives" that use space to "build" the elements of the narrative scene. Metzger (1995) builds on the analysis and uses Tannen's (1989) taxonomy to examine the occurrence of both constructed dialogue and constructed action in ASL in a series of sociolinguistic interviews. Metzger finds examples of six of the 10 types of constructed dialogue from Tannen's spoken language data occurring in Metzger's sign language data. Interestingly, seven out of eight of these categories that could pertain to constructing actions (such as constructing the actions of a cat) occur in the ASL data. Metzger finds that the signers utilize constructed action as a way of directly representing the actions of characters within a "storyworld", and that signers can indirectly represent the actions of characters through narration (such as using classifiers and/or gestures to describe rather than demonstrate the actions of characters within the narrative). In her data, signers also use a combination of both direct and indirect constructed action. For example, when a signer is describing a card game at which one of the seated players looks up to reply to someone who has just approached the card table, the signer both signs LOOK-UP and moves his head up and to the right, as he begins to construct the actions of that character (looking up and holding a handful of cards) as well as his dialogue (his response to the newcomer's utterance). While research suggests that constructed action plays a very prominent role in ASL narratives (see, for example, Mather and Winston, 1998; Liddell and Metzger, 1998), the construction of characters' actions is by no means limited to sign language discourse (see, for example, McNeill, 1992).

In the Oklahoma City Bombing narrative, the signer constructs his actions from the time within the "storyworld," demonstrating his actions at the moment he looked up and saw someone crying in his class:

WELL GET-UP (CL: people standing in semi-circle)

So, everyone stood-up

BE-QUIET. STAND. BE-QUIET . . .

and we were all standing there quietly,

#THEN FEW MINUTE PRO-1 OPEN-EYES THINK ENOUGH TIME. FINISH

then after a few minutes I opened my eyes because I thought it had been enough time and we were done.

PRO-1 CL:9 (eyes look up) (rs: startled) HOLD-IT. SILLY! STUDENT CRY+++

But when I opened my eyes and looked up at the class I was surprised to see someone crying.

LOOK-AT, WOW TOUCH-HEART.

And it really got to me . . .

When the signer uses the first person pronoun to indicate that he looks up and is surprised, he is not talking about the moment in which he is *telling* the story, but rather the moment within the story, at the time that he was teaching his class a week after the bombing took place. If his story were not a personal experience narrative, he would still be able to use a first person pronoun to refer to the person within the storyworld, even if that were a totally different person (and not simply himself at another time).

The use of constructed action and dialogue in ASL allows for discourse features, such as the conversational historical present (Woltson, 1979), that are also found in other languages, albeit with different linguistic features. This aspect of sign language discourse has also been examined, following various theoretical perspectives, in many sign languages, including British Sign Language (Morgan, 1999), Danish Sign Language (Engberg-Pedersen, 1995), Swedish Sign Language (Ahlgren, 1990a) and Québec Sign Language (Poulin and Miller, 1995). Thus, the use of space for referential shift purposes is clearly an integral feature of the discourse of many sign languages.

Cohesion

Cohesion in discourse refers to those linguistic features that allow the discourse to be constructed and understood in a coherent manner. Cohesion can be identified based on linguistic structures that link different parts of discourse, such as referring terms (by using a pronoun to refer to a prior lexical noun, for example). In signed discourse, cohesion can be found not only lexically and grammatically, but also spatially. The analysis of the use of space for cohesive purposes in sign languages comes in large part from the work of Winston (1993; 1995) and her examination of cohesion in ASL, particularly the mapping of comparative discourse frames in an ASL lecture. In her examination of an ASL lecture on poetry, she finds that the signer establishes one side of the signing space to refer to poetry as art and the other side to refer to poetry as science. Once the concepts have been established in this way, the signer can refer to one or the other side of the signing space and the addressees can interpret him to be referring to the concepts and comparison he has previously established. In fact, the addressee finds that the signer refers to his introductory spatial map as many as 700 utterances later, even when it is embedded within a separate comparative discourse frame (Winston, 1995: 96).

In the Oklahoma City Bombing narrative, cohesion can he seen in the spatial reference that is first established with an index after the first mention of Oklahoma City:

HAVE TWO STUDENT FROM O-K-A C-I-T-Y **IX-loc**

and I have two students who are from Oklahoma City.

Then, at the end of the narrative, the signer refers twice to the same spatial location, indicating reference back to this prior spatial indexing:

FIND POSS-3 SEVERAL FRIENDS DIE PRO-3 (wh) **IX-loc** TOO

I found out they lost several friends that day.

S-O PRO-3 KNOW SOME PEOPLE **IX-loc.** WOW LOOK-AT WONDER. TOUCH-HEART WOW

So I had students who actually knew some of the people who died in the bombing. Really me think!

Pointing to places within the signing area for the purpose of referring to conceptual referents in the minds of addressees is referred to as "referential spatial mapping." According to Winston (1992), spatial mapping plays an extremely important role in the structuring of discourse and in involving addressees in making sense of the discourse that they see. Winston finds that spatial maps can be used for a variety of purposes, including comparisons, performatives (constructing actions and dialogue), and the mapping of events temporally. Mather and Winston (1998) find that spatial maps can be used to structure the entire telling of a story (translated from written English to ASL), as space is used to map the story's topics and to involve the addressees in the creation of the meaning of the story segments and the story as a whole.

The use of space is not the only feature of sign language discourse that reflects cohesive devices. Another example of cohesion in ASL can be found in the phonological production of fingerspelling. Rapid fingerspelling can be used for co-reference once careful fingerspelling has established a referent in the prior discourse (Johnson, 1994b; Patrie and Johnson, in preparation). Fingerspelling and the use of space are two examples of strategies that are unique to sign languages that incorporate the more universal discourse feature known as cohesion.

Rhythm, Rhyme, and Repetition

Discourse marker use of space for comparatives, performatives and fingerspelling all offer coordination and coherence in discourse between speakers and addressees. Many other aspects of discourse can be found to provide coherence and, further, to entice the addressee not only to attend to, but also to relate actively to what is being uttered. For example, Tannen (1959) discusses ways in which the rhythm of spoken discourse captures addressees, as well as the strategies by which utterers capture attention and involve them in the process of interpreting meaning. She suggests that spoken languages use phonology to create what she calls "music" with language, as a rhythmic way of engaging addressees.

In the Oklahoma City Bombing narrative, the use of repetition can be seen as a strategy that entices the addressees through the signer's own evaluation of the significance of what he experienced:

PRO-1 CL:9 (eyes look up) (rs: startled) HOLD-IT. SILLY! STUDENT CRY+++

But when I opened my eyes and looked up at the class I was surprised to see someone crying.

LOOK-AT, WOW TOUCH-HEART.

And it really got to me . . .

(rs: IX-loc) FIND POSS-3 SEVERAL FRIENDS DIE PRO-3 (wh)IX-loc TOO

I found out they lost several friends that day.

S-O PRO-3 KNOW SOME PEOPLE IX-loc. **WOW LOOK-AT WONDER. TOUCH-HEART WOW**

So I had students who actually knew some of the people who died in the bombing. Really made me think!

In particular, the signer uses repetition to emphasize the impact of knowing someone who had lost friends in the bombing incident. He also modulates the speed of his signs during these sections, for instance by slowing down his pronunciation of WONDER. These phonological involvement strategies have been described in some detail in ASL by Winston (1998) in her discussion of sign

language prosody. She finds that nonmanual information conveyed by the eyes, head, face, shoulders, torso and arms/hands can be altered qualitatively in terms of their movement in space and in terms of features, such as speed, tenseness, size, direction and repetition of movement. She suggests that these can occur in combination and/or be combined with pauses, and that they impact the rhythmic production of signs, phrases, idea units and other units of discourse.

These features have specifically been found in the examination of visual rhythms in signed discourse. Mather (1989) examines the ways in which teachers sign stories from books to deaf students. In her study of a children's book, *The Three Little Kittens*, she finds that a number of visual involvement strategies are used by the teacher who is a native signer of ASL. For example, the teacher signs on the pages of the book using "miniature" signs, as a visual involvement strategy that represents a change at the phonological level (one that is not possible in spoken language discourse). According to Mather (1989), miniature signs are those produced by the teacher while resting the storybook on her lap. By signing on the book, the teacher allows the students to see both the illustrations and the ASL translation. Although the use of miniature signs is only one of many strategies described by Mather, it is clearly one unique to sign language discourse, and this allows the signer to draw the addressees into the narrative by representing the actions of the characters illustrated on the pages of the book. Another of the strategies used by the teacher is to translate sound-related words from the English story to visual concepts, such as the *meows* of the kittens being conveyed with the sign glossed as CRY. Mather (1996) has also found that signers use space and repetition rhythmically as a strategy to involve children in stories.

Repetition as an involvement strategy has also been found in ASL lecture discourse (van Hoek et al. 1989; Winston, 1991; 1993; 1994). Repetition can happen at all linguistic levels. Winston (1991; 1993; 1994) examines repetition of spatial reference as a cohesive device. That is, if a signer establishes two concepts to be compared — one on the right side of the signing space and the other on the left — then signing using the hand on one particular side of the signing space is a way of indicating that that discourse is linked to the respective concept. Such repetition occurs through a variety of strategies on the part of the signer, not only by locating signs in a particular part of the signing space, but also by gazing toward a particular location, or by reversing hand dominance (Winston, 1994). The use of visual involvement strategies, constructed action and dialogue, and repetition have also been found in the translation of written English stories to ASL in Mather and Winston (1998).

Sign languages use visual rhythms, rhymes and repetition to create cohesive discourse and involve addressees. The fact that features such as rhythm and rhyme, originally described on the basis of spoken language discourse, can be seen to play a role in visual languages demonstrates that discourse-level features, like grammatical ones, constitute a rich and vital aspect of sign language discourse.

The Relevance of Discourse Genre

The focus of this chapter has been on the description of discourse-level features that have been examined in sign language discourse. However, discourse takes many forms. While a variety of features have been discussed here, the function, frequency and types of features that occur in discourse can vary depending on whether the discourse is monologic or dialogic, or what genre of

monologue—be it lecture, sermon, dialogue, meeting or classroom—is taking place, as well as on whether or not the interaction is interpreted.

Of the features discussed in this chapter, few can be clearly labeled as solely monologic or dialogic. For instance, one of the most strikingly conversational features is turntaking, since turntaking is generally a feature exclusive to discourse involving two or more participants. Nevertheless, as Tannen (1989) points out, conversation forms the basis from which narrative discourse is born. And, just as narratives creep into the midst of most human conversations—as people share their personal experiences and ideas as a part of work and daily life—so, too, the construction of conversations creeps into the midst of many narratives. As discussed earlier in this chapter, the use of constructed dialogue is a discourse strategy in which the signer "relives" or reenacts (or, really, "creates" as Tannen has pointed out) the discourse, including turntaking, between two or more characters in the narrative.

The notion of conversation as the foundation of discourse is intuitive if one considers social interaction itself: the desire to communicate through language is a direct outgrowth of interaction between two or more people. The result of this is that all of the features discussed in this chapter have a place in signed conversational discourse. It has been seen that conversational partners take turns and repair their discourse, they mark their place in their own discourse and within the conversation as a whole, they use space and other cohesive devices and involve their conversational partners with the use of narratives and involvement strategies such as rhythm, rhyme and repetition. Moreover, in addition to the research on signed conversations in face-to-face interaction (see, for example, Baker, 1977; Martinez, 1993; 1995; Thibeault, 1993; Dively, 1998), researchers have also examined the features of tty discourse in the text telephone conversations of members of Deaf communities. For example, Mather (1991) examines the role of discourse markers, such as OH, in tty conversations among deaf Americans. Similarly, Glaser (1999) analyzes the text conversations of British tty users, finding that mutual constraints of text-based communication and natural conversation result in a uniquely organized type of conversational encounter. The more research that is conducted on conversational features of signed discourse, the clearer it becomes that more research is necessary. A quick examination of one feature, turntaking, makes that very clear.

In Glaser's (1999) findings, the structure of turntaking in tty conversations is found to be well organized. As tty users are aware, turntaking in tty conversations is regulated by explicit markers, specifically the use of typed GA. Thus, the examination of the text-based telephone communication of Deaf communities provides one example of how a single feature, turntaking, can vary from its use in general (face-to-face) conversation.

Another example of an important distinction of a single feature, turntaking, can be studied in the context of the prevalent use of interpreters by members of Deaf communities when interacting with hearing interlocutors. For instance, Roy (1989a) has researched turntaking in an ASL–English interpreted interaction. She finds that the complex interrelationship between the two differently regulated languages results in a need for interpreters to act as regulators of turntaking, sometimes yielding a turn to one participant and other times holding a turn for another participant. Her groundbreaking research makes it clear that, despite frequent expectations to the contrary, interpreters cannot simply relay utterances when interpreting interactional discourse. In a

follow-up study, Sanheim (2000) finds similar results in an interpreted medical examination. Clearly, the study of turntaking regulators and other interactional features found in interpreted discourse in other settings might also yield new information about the structure of signed interaction.

Finally, while turntaking has features commonly found in face-to-face conversations, these features are likely to be used in special ways in particular settings, such as classrooms. For example, Mather (1987) finds that teachers working in classrooms with deaf children use two kinds of eye gaze to regulate turntaking. In her data, eye gaze directed at individual students preceding a gaze intended for the whole group is much more effective than simply starting with a group gaze. Moreover, she finds that the native signer in her research is the one to use the effective strategies, while a hearing nonnative signing teacher does not. She finds that the teacher's communicative competence has a direct impact on the attentiveness and behavior of the students. Such information is useful in the training of teachers (as well as in the selection criteria for teachers being hired).

Taking a look at the varying structures of a single feature of conversational discourse, turntaking, when applied to a variety of contexts, makes it clear that the features of conversational discourse are quite dynamic. Fortunately, a growing pool of research addresses conversational discourse features, and, hopefully, even more research is yet to be done regarding each of these features in both two-party and multiparty conversations, in-person and on the telephone, both with and without interpreters, and in different settings, such as meetings, interviews and classrooms.

Like conversational discourse, monologic discourse takes many forms. For example, narratives, such as those that relate personal experiences, emerge in conversations. While much of the research on narratives in sign language discourse are analyses of elicited narratives (rather than videotaped as a part of conversations: see, for example, Gee and Kegl, 1983; Metzger, 1995; Emmorey and Falgier, 1999). Wilson (1996) has the opportunity to apply the conventional Labovian taxonomy of personal experience narratives to an ASL narrative that occurs during a videotaped conversation between six deaf signers. Labov (1972c) divides the structure of spoken personal experience narratives into five parts:

1. abstract: introductory summary of the story;
2. orientation: description of setting;
3. complicating action: events within the story;
4. evaluation: speaker's reasons for telling the story;
5. coda: the "punchline," the shift back from narrative-time to present time.

Wilson also includes in her analysis the narrative units identified by Gee (1986), dividing a narrative into lines and stanzas based on prosodic features such as intonation and pausing. Wilson finds that both approaches to the study of conversational narratives apply to the ASL data. Interestingly, she finds that in either approach, constructed dialogue is consistently relevant to the structure of the conversational, personal experience narrative.

More formal narratives are also examined in the literature on signed discourse. For example, Bahan and Supalla (1995) examine line segmentation and the role of eye gaze in the structure of a formal, commercially available narrative, *Bird of a Different Feather*. This analysis builds on Gee (1986) and breaks the narrative down into smaller units of discourse, from chapters, to sections, to strophes, to stanzas, to lines (1995: 173–

176). In their examination of the smallest unit of narrative discourse (the line), they focus on eye gaze — rather than pausing (Gee and Kegl, 1983) or head nodding (Liddell, 1980) – applying the findings of Baker (1977) and Baker and Padden (1978) and the role of eye blinking and gazing in turn-taking to the marking of line boundaries in the ASL narrative.

Bahan and Supalla find two basic types of eye gaze behavior in the narrative: gaze to the audience and character's gaze. Both of these types of eye gaze serve a particular function. For example, gazing to the audience is a marker of the fact that the signer is narrating the story. When the signer takes on the head posture (such as right or left head turning and eye gaze toward the imagined interlocutor) the signer is constructing the actions and/or dialogue of a character from the narrative. Bahan and Supalla find that the most common demarcation of lines in the segment of narrative that they examined is when there is alternation between these two types of eye gaze. In addition, the line boundaries are marked by a non-gaze behavior, either a pause, head nod or eye blink. They also find that the second type of eye gaze can occur at the end of two lines in a row, but in this case the line boundaries are not only marked with one of the three non-gaze behaviors, but also with either a brief gaze to the audience between lines or with a referential shift.

The study of narrative literary devices in sign languages is not only useful for its many practical applications, such as in ASL teaching and language arts classes, but also in the study of less formal narrative discourse. As Tannen (1989) points out, many of the typically literary devices in spoken languages, such as the use of imagery and detail, serve as involvement strategies in the discourse of everyday conversations. This appears to be true in sign language discourse as well. For example, in the study of ASL narratives, the role of constructed action and dialogue as a fundamental part of the narrative structure has been found to be true in literary narratives (Bahan and Supalla, 1995; Mather and Winston, 1998), conversational narratives (Wilson, 1996) and elicited narratives (Liddell and Metzger, 1998). Evidence suggests that this is also the case for other sign languages as well (for instance, for a discussion of Québec Sign Language, see Poulin and Miller, 1995; for Danish Sign Language, see Engberg-Pedersen, 1995; for British Sign Language, see Morgan, 1999).

Formal narratives are not the only literary genre of monologic discourse that has been examined. ASL poetry, BSL poetry and the poetry of other sign languages is a form of monologic discourse within the literary realm that has gained increasing recognition and research in recent years (see, for example, Valli, 1994; 1995; 1996). Such research has shown that many of the features of poetry found in spoken languages, including rhythm, rhyme and alliteration, are also prevalent in signed poetry, through such features as eye gaze, body shift, head shift and the selected use of handshapes and movements. This information, in turn, feeds the study of conversation, once again. As Tannen (1989) describes, the role of imagery and detail common to literature can often appear in daily conversational discourse.

In addition to the more literary monologic discourse found in ASL narratives and poetry, some analysis of formal lectures has also been conducted, as seen in the previous sections. For example, Roy (1989b) with a discussion of discourse markers and Winston (1993) with a discussion of cohesion are both based on the analysis of lectures in ASL. Some preliminary research has also been conducted on the discourse of sermons, as signed by deaf pastors. Richey (2000) finds that in ASL sermons, the use of

questions to the congregation as an interactional involvement strategy is a unique feature not often found in the spoken English discourse of hearing pastors. Clearly, a wide variety of both conversational and monologic discourse genres has received the attention of sign language discourse analysts.

A word about sociolinguistic factors is also relevant here. Like all sociolinguistic research, sociolinguistic factors such as age, ethnicity and gender can play a role in the occurrence of such features. For example, Martinez (1995) finds that in FSL, the male signers in her study had longer turns than their female partners. Moreover, Bruce (1993) in a study of six deaf dyads, including both white and African American deaf signers, finds that the use of verbal and nonverbal backchanneling is different for the African American and the white deaf signers, and that African-American–African-American dyads used backchanneling differently from African-American–white dyads.

In addition to such sociolinguistic factors as gender and ethnicity, sign language communities generally include a unique variant used by deaf signers who are also blind. While sighted Deaf community members use a visual sign language, Deaf-Blind signers often use a tactile variety of that language. For example, Collins and Petronio (1998) find that Tactile ASL exhibits variation from visual ASL at a variety of linguistic levels, including phonological, in terms of movement, orientation and location, and morphological, in terms of the presence or absence of facial configuration with the co-occurring muscle tension and movement patterns that conveyed adverbial and adjectival information in their data.

Clearly, research regarding the impact of sociolinguistic factors on discourse suggests that a great amount of research remains to be done both across sign languages and within sign languages in order to study the features of signed discourse within different genres and based on a variety of sociolinguistic variables.

Conclusion

Discourse analyses of sign languages make clear the necessity for examination of sign language discourse at levels above the sentence, both for the improved understanding of sign language structure and for the understanding of language in general. These studies also have practical implications for professionals in a variety of fields. For example, for educators — regardless of whether they are engaged in first or second language teaching — developing discourse-level skills in learners is essential in order to be able to interact smoothly, coherently and successfully. It also has implications for the field of interpretation. Interpreters generally are expected to convey equivalent messages when translating between two languages. Interpreters who attempt to provide equivalence at a lexical or sentential level are potentially missing aspects of the discourse as a whole (such as cohesion). Discourse analysis of sign languages provides important information, both theoretical and practical.

A large portion of the linguistic work performed since Stokoe's ground breaking findings in the 1960s has focused on theoretical issues and formalist perspectives. Discourse analysis is grounded in the fact that language is used when people interact, and that the study of language in use can provide information to support or refute theories generated non-empirically. Sociolinguistic research by discourse analysts about visual languages and the Deaf communities that use them is increasing globally. This functional perspective is, perhaps, long overdue in the bulk of sign language research. It is likely that the analysis of signed discourse

based on the approaches described here will contribute immensely in the years to come to our understanding of both sign languages and language in general.

Suggested Readings

This chapter draws heavily from both the spoken language literature and the sign language literature on discourse analysis. For a general description of discourse analysis and issues that motivate this interdisciplinary field, van Dijk (1997a; 1997b) is an excellent source. Regarding the approaches to the analysis of spoken language discourse, Schiffrin (1994) provides a comprehensive overview of the six approaches summarized in this chapter. She not only provides detailed descriptions and comparisons of the approaches, but also includes sample analyses for each. These two books provide information about the field that is neither limited to one approach or to one theoretical perspective. For more specific information on a given approach or methodology, see the citations within that section of the chapter.

An exceptional source for the study of sign language discourse is Lucas's series *Sociolinguistics in Deaf Communities*, since every volume includes at least one chapter that focuses on sign language discourse. Specifically, volume 5 of the series, *Storytelling and Conversation: Discourse in Deaf Communities* (Winston, 1999) contains eight chapters that address the signed discourse of a variety of countries and is based on a variety of approaches. Additionally, for further information regarding the use of space in sign language discourse, Emmorey and Reilly's (1995) *Language, Gesture, and Space* includes 19 chapters that focus on spatial issues. While many of these focus more on the grammatical level than on the discourse level, several of the chapters in this book offer empirical analyses of sign languages above the level of the sentence.