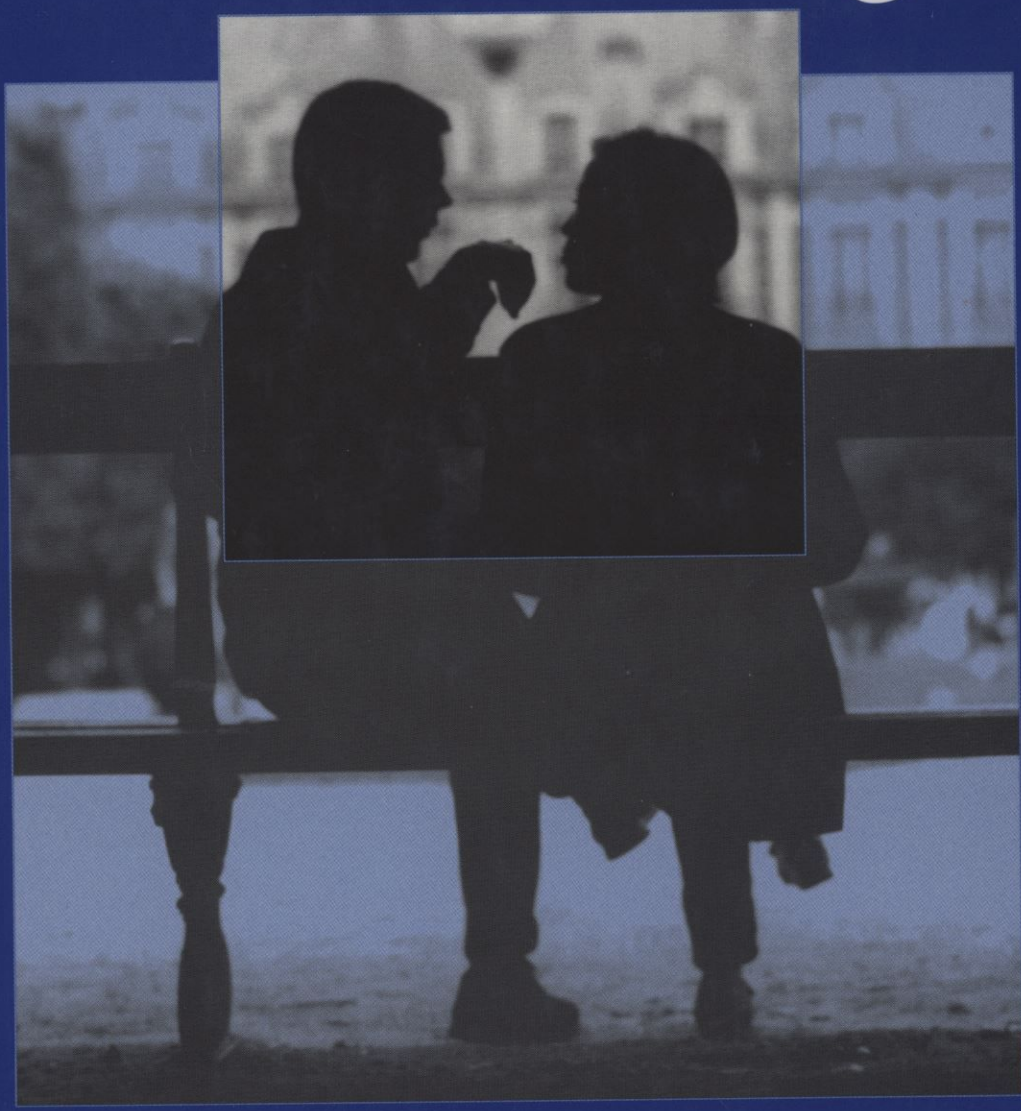
Conversation and Brain Damage



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Word Searches in Aphasia

A Study of the Collaborative Responses of Communicative Partners

Within the discipline of clinical aphasiology, we are becoming progressively aware of the need to study the communicative ability of persons with aphasia in authentic conversational settings. Based on the work of a number of researchers (Goodwin, 1995; Holland, 1982, 1983; Klippi, 1991; Lyon, 1992; Oelschlaeger & Damico, 1996), we recognize that many persons with aphasia communicate better in natural conversational settings than we would predict, given their performances on traditional test batteries of aphasia. That is, despite significant documented impairments within their neurological systems that lead to extensive linguistic deficits, many persons with aphasia are still able to function relatively well in conversational settings.

Despite these current findings, however, we have not been able to fully demonstrate and explicate the aphasic's ability to use talk-in-interaction. This lack of documented research is primarily due to our assumptions about language as a cognitive system within the mind of the person with aphasia and because of the research methodologies traditionally applied in clinical aphasiology (Damico, 1993; Damico, Simmons-Mackie, & Schweitzer, 1995). We need to employ other assumptions about language and conversation, and we need to use more authentic research stances if we are to understand the pragmatic life of brain-damaged patients.

Recently, there has been increasing interest in investigating aphasia from a more authentic perspective. Studies by Armstrong (1989), Ferguson (1992, 1994, 1996), Goodwin (1995), Simmons-Mackie and Damico (1996a, 1996b), and others (e.g., Copeland, 1989; Klippi, 1991; Penn, 1987) have looked at the communication ability of persons with aphasia by shifting the research paradigm from a traditional to more qualitative, interpretive frames to obtain a more authentic picture of everyday language

use. Specifically, a more sociological perspective defines conversation as the primary focus of study and stresses the co-participatory nature of language and conversation.

By studying conversation in persons with aphasia as a socially interactive phenomenon, characterized as "talk-in-progress" "locally managed" by its participants (Sacks, Schegloff, & Jefferson, 1974), we should learn more about the impact of aphasia on interactive social behavior and about how persons with aphasia accomplish interactive activities despite their neurological impairments. Do the systematic properties of the sequential organization of conversation noted in non-brain-damaged persons exist in persons with aphasia? If so, how are they achieved by the participants, given that one of the conversationalists is limited in language ability? If, indeed, conversations with persons with aphasia are systematically and sequentially organized by participants, we may gain greater understanding of the communicative success noted in the "talk" of persons with aphasia.

This chapter relates findings from a long-term investigation of the natural conversations of a person with aphasia and his most frequent conversational partner, his spouse (Oelschlaeger & Damico, 1998a, 1998b). Using videotaped data, we explored a wide range of phenomena relevant to the interactive sequential organization of conversation. This chapter focuses primarily on word searches and the co-participatory strategies that this husband/wife dyad employs to overcome these instances of difficulty in conversation due to the word retrieval deficits common to aphasia.

Methodology

Data collection

Over a two-month period, we videotaped the natural conversations of Ed, a person with aphasia, and his wife M, his primary conversation partner, in their home. Both Ed and M were in their early fifties and had been married for 28 years. Ed had a six-year history of a single left CVA with residual right hemiplegia and aphasia. His aphasia was moderately severe as characterized by an aphasia quotient of 46.6, which derived from the administration of the Western Aphasia Battery (WAB; Kertesz, 1982) (subtest scores for the WAB are presented in appendix 1). Descriptively, Ed understood what was being said to him relatively well and was generally able to follow the topic of conversation. However, when comprehension depended on a single word or when the talk of others was too long or linguistically complex, he would misunderstand. Although he could use many different forms of language and could, almost always, get his main idea across, his spontaneous speech was peppered with instances of word-finding difficulty and grammatical errors. Qualitatively, his language production was slow and effortful.

In total, eight naturally occurring conversations of Ed and M were obtained. Five conversations were between Ed and M only; on three other occasions, two other persons, MO and MG, were present. Information about conversation length and turns-at-talk for all participants is presented in table 9.1.

In the 266 minutes of videorecorded conversation, the combined total of turns-at-talk was 3,561. Despite his moderate aphasia, Ed was an active participant in these conversations, with his total number of turns almost equal to his spouse.

Data analysis

All the videotapes were transcribed and then cyclically reviewed to identify recurring patterns of interaction between Ed and M. This data analysis was conducted in the following stepwise manner:

1. Major patterns of interaction were grossly identified. One specific pattern repeatedly observed was a sequence of interaction that occurred when Ed's conversational turn was incomplete.
2. The focus of this analysis moved to these incomplete turns.
3. Subsequent review of instances of Ed's incomplete turns revealed an even more specific recurring pattern associated with word retrieval difficulty. More specifically, 38 instances were observed when Ed initiated a word search and his spouse, M, joined his speaking effort.
4. These 38 word search sequences were then selected for sequential analysis: the observable verbal and non-verbal behaviors of both Ed and M were detailed on a turn-by-turn basis. Analysis of word search sequences included the turn initiating the search and all subsequent turns until the word search was terminated.
5. From these behavioral analyzes, patterns of organization of the 38-word search sequences were identified. Interpretive analysis of patterns was performed to explicate the meaning and design of their organization.

TABLE 9.1. Turns-at-Talk for Conversational Participants for Each Conversation

Conversation		*Ed*	*M*	*MG*	*MO*
A	42 min	211	192	197	0
B	28 min	212	213		
C	31 min	169	195	49	173
D	35 min	186	176		
E	44 min	184	336	56	289
F	19 min	64	55		
G	31 min	122	114		
H	36 min	185	183		
Total	266 min	1333	1464	302	462

Focus of data analysis

Selection of conversational sequences characterized by M's participation in Ed's word searches was not an a priori decision but emerged from data analysis. Nonetheless, for several reasons this focus is particularly meaningful to the purpose of this study. First, word retrieval deficits, the assumed basis for Ed's word searches, are characterized as a universal feature of aphasia, regardless of severity and regardless of any assumption of types of aphasia (Brookshire, 1992; Davis, 1993). This universality supports generalization of the findings of this study to other conversations and, potentially, other individuals with aphasia. Second, studies of ordinary speakers have described how participants work both systematically and collaboratively to manage word-finding problems (Goodwin, 1979; Goodwin & Goodwin, 1986; Sacks, 1992). This invites comparison of our findings with those of ordinary speakers. Third, there is a current trend in aphasia therapy to train "communicative partners" (Holland, 1991; Kagan, 1998; Kagan & Gailey, 1993; Lyon, 1989, 1992). The knowledge gained in this study about conversational participants when word-finding problems occur may enhance the clinical meaningfulness of these therapeutic endeavors.

Word retrieval difficulty in conversation

Before discussing the interactive patterns used by this couple, we describe Ed's word-finding difficulty that served as the basis for the focus of this study. Representative incomplete turns Ed produced, thought to be associated with his word retrieval deficit, are illustrated in example 1 a and b. These utterances occurred consecutively in conversation A.[1]

In this conversation, Ed, his wife (M), and a female visitor (MG) were sitting at the kitchen table in Ed and M's home. At this point in the conversation, the topic was Ed's employment before and after his stroke.

Example 1

(a)

x~mid distance gaze————————,,,—gaze down————————————

83 Ed: Well, I was a **(1.0) I'm the- uhm how should I say it? (2.1) I'm:::(1.7)**

-gaze further down and head down——x

84 **can't think of the name of it.**

(b)

89 Ed: Let me see. I'll put that another word **(2.0)** I like it **(1.0)** but **uh (2.1)** now that they said that you can do- engineering but no more.**(1.5)** So okay "What do you want me to do?" **(1.5)** and **(5.0) tsk uhm::** about **4 months 5 months (1.5)** well what do we do next? You know? And says uh 'well, I don't know'**(1.6)** so I went down to**::: (1.5) uhm (2.6) uhm (*) no (1.8) hm::::::**

Most germane to this study is the characterization of these utterances as reflective of word-finding difficulty in aphasia as they occur in conversation. Research of ordinary speakers has identified a number of verbal, non-verbal, and linguistic phenomena collectively described as word search indicators (Goodwin, 1987; Goodwin & Goodwin, 1986; Shegloff, Jefferson, & Sacks, 1977). These include the following:

verbal: cutoffs (e.g., glottal stops, breaks in phonation), speech perturbations e.g., uhm, uh), pauses, revisions/restarts, negative tokens (e.g., no), sound stretches

non-verbal: diversion of gaze from recipient to mid-distance or gaze withdrawal

linguistic: wh-question (i.e., what was the name of that?) and meta-linguistic comments (e.g., how should I say it; can't think of the name of it).

In example 1 a and b, the word search indicators (indicated by bolded items in the utterance and marking of mid-distance gaze) of Ed's word retrieval difficulty in his conversational turns are the same as those identified in research of ordinary speakers. What is somewhat extraordinary is their frequency and their impact on verbal fluency and total turn length. Ed's turn in example 1 b was 53 seconds. If word search indicators were omitted, the length of utterance would be significantly reduced (e.g., just subtracting pauses would reduce his speaking effort by more than 20 seconds). In addition, the qualitative feature of verbal fluency and subjective judgment of verbal proficiency would be dramatically enhanced. These quantitative and qualitative features serve to differentiate the conversation of a person with aphasia from an ordinary speaker.

Word search sequences

As with ordinary speakers, several types of interactive management strategies or patterns occur in the face of the word retrieval difficulties observed in this interactive aphasic/spouse dyad. Significantly, these patterns rely on extensive collaboration between the individual with aphasia and his wife. Specifically, two types of word search sequences noted in the interactions of non-aphasic dyads were identified: guess sequences and alternative guess sequences. The conversational collaborations needed to negotiate these word search sequences are discussed in the next sections.

Guess sequences

An interactional sequence that frequently occurred when Ed had difficulty saying a word was a guess sequence as illustrated in example 2a and b.

Example 2

(a) In conversation A, the topic was Ed's occupation. MG has just asked Ed what he does for a living and he is responding to her.

x—mid-distance gaze————————,,,—gaze down————————————

83. Ed: Well, I was a (1.0) I'm the- uhm how should I say it? (2.1) I'm::: (1.7)
-gaze further down and head down—x
84. can't think of the name of it.
85. M: Draftsman?
,,,—MG—x
86. Ed: Draftsman.

(b) In this example (also taken from conversation A), the topic was videotaping. Ed is telling MG about how often he was videotaped by his speech-language pathologist when he was receiving aphasia therapy.

x————,,,—MG————————,,,—gaze down————————x
19. Ed: I'd say ten (2.3) uh (1.5) uh (1.8) uhm I can't think of the name of it.
M: x———nod x 4————————————————————x
20. M: Times?
Ed: x-gaze down-x
,,,–MG–x
21. Ed: Times

In both of these examples, Ed initiates a word search and M joins his effort by offering a word to him as a guess. A detailed examination of the organization of the conversational sequence presented as example 2b shows how guess sequences are interactionally accomplished.

In line 19 of example 2b, Ed makes his word finding difficulty visible to M by word search indicators (e.g., pauses, interjections, gaze, and verbalizations).

x————,,,—MG————————,,,–gaze down————————x
19. Ed: I'd say ten **(2.3) uh (1.5) uh (1.8) uhm I can't think of the name of it.**
M: **x———nod x 4————————————————————x**

That M recognizes that Ed is initiating a word search is seen in her gaze. As shown in bold under line 19, her orientation is heightened; she continuously gazes at him throughout his utterance. Her monitoring of his utterance is also evident in her affirmative head nods. What is interactively important here is that M's nods provide visual feedback to Ed, albeit peripheral to his direct gaze, that his utterance is being understood as he is saying it. It supports his speaking effort (Goodwin, 1979, 1981) and *despite his difficulty speaking*, Ed continues making additional efforts to say the desired word. However, following several unsuccessful attempts, he abandons his search, as shown in his downward gaze and his verbalization that he is unable to say the desired word. These non-verbal and verbal behaviors serve as an indirect invitation for M to join his effort (Oelschlaeger, 1999) which she does in line 20. Here she offers a candidate word as a guess.

x————,,,—MG————————,,,—gaze down————————x
19. Ed: I'd say ten (2.3) uh (1.5) uh (1.8) uhm I can't think of the name of it.
20. M: **Times?**
Ed: x-gaze down-x

The fact that she offers a guess at this point and that her offer is syntactically and semantically coherent with Ed's utterance shows again how she has been actively monitoring his utterance. It also demonstrates her interactive role as a listener/speaker, accepting the indirect invitation to participate and, simultaneously, making a claim on what will happen next in the conversation. Specifically, her guess provides the organizational structure of a question-answer adjacency pair (Sacks, 1992; Sacks et al., 1974; Schegloff & Sacks, 1973). That is, when a question is asked, an answer is projected. Thus, when M joins Ed's search by offering a word as a guess, she selects Ed to take the next turn in the conversation.

Not only is Ed selected as next speaker, but by asking a question, M defines what he is to say. He shows his understanding of this interactional technique in line 21 when, immediately following M's guess, he repeats her word as an answer.

20. M: Times?
,,,–MG–x
21. Ed: **Times.**

His answer acknowledges M's contribution and affirms its accuracy. Simultaneously, he returns his direct gaze to the conversational recipient (MG). In this way, Ed indicates that the search is over and that he is going to continue his conversational thrust.

Social identification and participation

The obvious outcome of the guess sequence is the production of the desired word (e.g., termination of the word search) with subsequent continuation of the conversation. However, equally important to recognize is the social action of this sequence, seen in additional analysis of Ed's and M's design of their turns. Relating first to M is the recognition that she designed her contribution to Ed's word search as a guess. This is significant because M could respond to Ed's difficulty in more than one way. Knowing the spousal relationship between these two, one might assume that she often knew what he was trying to say. This experiential knowledge gives her the option of framing her turn differently. For example, in example 2a, an alternative might be to state "draftsman" affirmatively. However, this option would have a different interactional thrust. If she offered her word declaratively, she would essentially finish Ed's as yet incomplete turn. Offering a word to a person who is having difficulty saying it is socially appropriate and is often viewed as "helping." By giving help, M is socially constituted as a "helper." However, it has a less positive social implica-

tion relative to the person being helped. The social implication in this instance would be that Ed is incapable of finishing it himself. By finishing his turn for him, M would socially identify Ed as linguistically inferior. As his turn would now be completed, she could continue speaking, co-opting his conversational participation even more. But by offering Ed a candidate word as a guess, M selects him as the next speaker. By providing him with an opportunity to participate, she socially identifies him as a competent speaker. This social identification is additionally supported through her rising intonation. Here again, she treats Ed as conversationally competent, as such use presumes his ability to understand the social action implicated by this prosodic feature.

Complimenting the social action of M is that Ed, through his answer turn, also presents himself as a competent speaker. He demonstrates his competence in a number of ways. First, when M uses the paralinguistic raising intonation of a guess, he offers an answer. In this way, he shows that he understood, through his own monitoring of her talk, that a question was being asked and that the next move in the conversation was his. Second, his answer is a repetition of M's guess, stated with falling intonation. As he produces the desired word in this way, he, in effect, completes the word search that he started, talking for himself rather than letting others talk for him. He regains his position in the conversation and could even continue talking, should he desire. He holds up his end of the conversation *despite aphasia*. Third, in repeating the desired word, he lets the other conversational participants know he is capable of saying it. He could, of course, have designed his answer with a simpler form of agreement such as "uh-huh" or "yes" to show that M's guess was the word he was trying to say. And the conversational outcome would have been the same—the word search would have been terminated and the conversation would move forward. But in this instance, Ed's ability to say the word himself would be open to question. However, when he repeats M's word, the implication is that his word search occurred *not because he couldn't say the desired word at all* but, rather, he couldn't come up with the word he wanted to say *just then*. In this way, he presents his difficulty as a characteristic of the moment, more like the transitory difficulty experienced by ordinary speakers (Goodwin & Goodwin, 1986; Schegloff et al., 1977) than the pervasively present difficulty of a linguistically inferior speaker.

Alternative guess sequence

Not all word searches were as easily and simply resolved as those illustrated in example 2a and b. At times, M's offered guess was inaccurate. This couple then used an alternative guess sequence strategy. Alternative guess sequences are characterized by the same basic question and answer organization of a single guess sequence. One important difference, however, is the greater social impact of multiple inaccurate guesses on a conversation. In this situation, the threat to conversational flow is increased. As noted in research of ordinary speakers, alternative sequences require

additional collaboration by participants to work their way through the search and to continue their conversation (Goodwin, 1995). How this is accomplished by Ed and M appears in example 3. Here, the first guess is rejected. Nonetheless, the conversational work continues by both Ed and M, again leading ultimately to communicative success.

Example 3

541. MG: Then they realized, then they put you in the hospital.
542. M: Uh huh.
,,,—looks down—circles hand around head——
543. Ed: Yeah but then they did uh (1.2) the uh (1.9) uh what do you call it (2.1)
——x
544. the uh
545. M: **MRI?**
gaze down
546. Ed: **No.**
547. M: **Angioplasty?**
gaze down
548. Ed: **No.**
549. MG: EEG?
gazes down-,,,-MG——,,,—gaze down————————————x
550. Ed: No. The irr . . . no (tsk tsk) **srays.** What do you call it?
(1.0)
551. M: **An x-ray?**
,,,-M & nod-,,,MG————————————
552. Ed: X-ray. And he says 'oh look he's got a tra
553. MG: //Look there!

Some of the unique collaborative interactions exemplified in this alternative guess sequence are "no" tokens and the provision of additional information following inaccurate guesses. First, Ed's "no" tokens in lines 546, 548, and 550 show again his competency as a conversational participant. He is monitoring and understanding what is being said and is able to reject offered words. In terms of the immediate needs of the conversation, they function to indicate inaccuracy. From them, M learns the error of her guess. If she is to continue to participate in Ed's search, she must guess again. And without additional information, her subsequent guesses are derived from semantic information of "things that happened when Ed was in the hospital" (line 541).

Second, relating to the provision of additional information is that, following two inaccurate guesses (and a third by MG in line 549), Ed attempts to say the word again.

550. Ed: No. The **irr . . .** no (tsk tsk) **srays.** What do you call it?

Clearly, he recognizes the threat to the flow of conversation and shows his uncertainty about M's ability to provide an accurate answer by renewing his own effort to

say the desired word. Even though unsuccessful, his attempt provides additional information about the phonological structure of the word he is searching for. In this way, he keeps the search going and elicits M's participation, again resulting in her offer of a final, accurate guess. That his attempt provided additional information that she could use in her turn appears in the phonological similarity between his word "srays" and her guess "x-ray" (line 551).

Implications of word search sequences to aphasia

Based on our analyses, the collaborative interactions of Ed and M noted in these word search sequences lead to communicative success in ways that positively influence social identities. Additionally, their co-participation is especially adaptive to Ed's aphasia, as seen through additional analysis.

Soliciting and maintaining Ed's participation has special relevance with regard to aphasia. One common clinical complaint and observation, supported by the literature, is the lack of participation and initiation of conversation by persons with aphasia (Armstrong, 1989; Copeland, 1989; Klippi, 1991). By guessing, selecting him as speaker, and treating him as a competent speaker, M supports Ed's participation in conversation generally.

Of course, it is quite possible, as with ordinary speakers, that offering a word as a guess reflects speaker uncertainty. However, Example 4 offers evidence that this is not the case.

Example 4

In this example, Ed is telling MG about the distance he had to travel from his home to work when he was in the military.

x-gaze and hand to table——„„—M————————————„„lowers gaze/head——

372. Ed: Yeah. From here to one there, one mile, one (2.3) no (2.1) can't think of

M: x——Ed————————↓————————————————

nods head "no," looks quizzical

down, sits back-x

373. name of it

M: x—Ed——x

374. M: **Hour?**

375. Ed: Hour.

Here, in line 372, Ed initiates a word search, and during his effort, M nods her head "no" and looks quizzically toward him. These non-verbal behaviors provide feedback to Ed that his efforts are not succeeding. As they signal he is "wrong," they additionally imply that M knows what's "right." That is, she knows the direction of his talk. Even so, when she does participate in the search, her candidate

word is a guess. As such, this example supports the interpretation of her contribution as one intended to elicit Ed's participation rather than a reflection of her own uncertainty.

Ed's use of repetition as a way to confirm the accuracy of M's guess is also especially adaptive to his aphasia. As noted previously, he could have responded with a simpler form of agreement (e.g., yes or uh-huh). However, as Jefferson (1973) notes in conversational analysis literature of ordinary speakers, yes/no is a "general acknowledger" and does not "prove understanding." Answering her question with a repetition provides M with more information about how adequately and accurately he has processed her guess. Ed's repetition reduces the question M might have about his auditory comprehension of her talk in a way a yes/no does not. This is an important adaptation because auditory comprehension ability is always at issue generally with aphasia and more specifically with regard to the parameters of Ed's language deficit (see appendix 1).

Evidence to support the interpretation of a repetition as more informative than yes/no is seen in example 5. In this example, M shows her insecurity about his comprehension of her guess as she repeats it when his answer is structured as a yes/no.

Example 5

In a discussion in conversation B of a person at Ed's place of employment, a search for a proper name is in progress:

261. M: Oh::: its not Gambsy.

262. Ed: **No, no.**

263. M: **Tchikowski?**

264. Ed: **No.**

265. M: **Jack Tchikowski.** No?

In this guess sequence, Ed rejects M's first guess (line 262). Even though his "no" shows his lack of acceptance of M's offer, it provides her with little information about the basis for rejection. It could be that indeed, "Tchikowski" was not the name he was looking for. But it is also possible, *because of Ed's aphasia*, that he rejected her guess because he did not accurately auditorily process her offer. In light of this ambiguity, she repeats the offer and adds the tag "no" question in line 265. This requires him to process her guess again and confirm his rejection as a means to eliminate her uncertainty about the accuracy of his response.

A final comment on Ed's answer as a repetition relates to its benefit to himself. His repetition of her guess provides him with an opportunity for reauditorization, assisting his linguistic processing of the word and assuring the accuracy of his response (see Oelschlaeger & Damico, 1998b, for a more extensive discussion of repetition in aphasic conversation). Some indication that Ed repeats M's word to permit additional auditory processing occurs in the next example.

Example 6
Ed and M are sitting on their patio in conversation B, discussing work that needs to be done on their RV.

372. Ed: Yeah, I know. Because the the uh the uh the uh wheel no the
373. M: the **tailpipe**?
374. Ed: **Pipe. No no** the- you see
375. M: the b-
376. Ed: //it's lower
377. M: **the bumper?**
378. Ed: **the bumper.** No. Was a uh-
379. M: What was that? Well, one of 'em is the gas can tank.

In each attempt to resolve the word search, Ed repeats M's guess (line 374, 378), which, as noted in previous examples, typically affirms accuracy. However, as noted here, following repetition, he rejects her guesses with a "no" token. Thus, his repetition provides feedback not only to her but to himself. His restatement of her word allows him an additional opportunity to assess its accuracy. He is then able to construct the rest of his utterance, accordingly assuring that the conversation stays on track. His provision of an answer as a repetition can then be seen as a constructive adaptation to his aphasia.

Conclusion

Our analysis of just a few features of the single and alternative guess sequences shows that Ed and M socially organize their conversation. They work together to resolve a word search and keep the conversation moving. They use each other's turns to build their own turn, with their movement through the word search being highly—yet spontaneously—choreographed. They are able to use their mutual knowledge of specific interactional techniques to organize the conversational disruption of a word search. In a systematically organized way, they collaborate to complete Ed's turn and continue their conversation.

Analysis of the utterances of this couple when word retrieval problems occurred in their conversation showed that they "talk" in many ways just like ordinary persons. That is, their conversation is systematically, sequentially organized through their collaborative co-participation. In addition, evidence of specific interactional techniques shows that they accomplish the social organization of their conversation in much the same way as ordinary speakers. Despite Ed's aphasia, they are able to use the procedures ordinary speakers use to produce and understand conversation. They also show their collaborative sophistication in how they dynamically establish and maintain social identities within their conversations.

These findings have direct implications for issues relating to communicative competence and, more specifically, relating to why persons with aphasia are "perceived to talk better than they speak." As the data from this study and from the few others that have examined the interaction of conversational participants (Armstrong, 1993; Ferguson, 1992; Goodwin, 1995; Klippi, 1991; Oelschlaeger, 1999; Oelschlaeger & Damico, 1998a, 1998b; Simmons-Mackie & Damico, 1995, 1996a, 1996b) show, communicative success is not solely a product of an individual's contribution. Rather, it results from the interactive communicative process.

Studies have emphasized the "intactness" of interactional competencies of the person with aphasia. This study certainly supports this observation. But results of this study also emphasize M's competencies in the presence of Ed's aphasia. They are both ordinary and extraordinary speakers. As noted previously, both Ed and M uniquely adapted their conversational collaborations to Ed's language ability. These unique adaptations have important implications both to the experience of communicative success and the social life of this couple. As Kagan and Gailey (1993) have stated, the inability to communicate in conversation jeopardizes the psychosocial well-being of a person with aphasia and their communicative partners. Ed and M, through structuring their interactions in a way that capitalize on Ed's language ability, enhance his conversational participation, their experience of communicative success, and (presumably) their psychosocial well-being. To be sure, they are not able to eliminate the influence of his aphasia, but they are able to co-construct their conversation, despite his linguistic deficit.

Several questions arise from review of the findings of this study. One is whether the adaptations in organizational structure are simply idiosyncratic to this couple, possible only because of Ed's language (dis)ability. Comparison of these findings to those of Goodwin (1995), Simmons (1993), and Simmons-Mackie and Damico (1996b) suggest this is not the case. Goodwin's study involves a severely aphasic man whose language ability was limited essentially to yes/no. In this report, Goodwin describes how family members adapted their questions to this gentleman, posing them in yes/no binary form. Simmons (1993) and Simmons-Mackie and Damico (1996b) note the use of various iterative utterances and gestures by a severely aphasic female to solicit the participation of others in conversation. Study of other couples is needed to provide additional information about interactional competencies.

Other questions arise as to how Ed and M's interactional competencies and the adaptations to them were incorporated into their conversation. Were these same competencies present prior to Ed's stroke or acquired subsequently? Were modifications intuitive or a result of experience? Again, additional research, studying the conversational interactions of couples, especially over time, will provide information relevant to this question.

Besides identifying directions in future research, this study also has implications for aphasia management. Certainly, results support the adoption of a more sociolinguistic perspective in aphasia treatment as seen in programs emphasizing the importance of communicative partners to communicative success (Holland, 1991; Kagan, 1998; Kagan & Gailey, 1993; Lyon, 1989, 1992).

Appendix 1

Western Aphasia Battery scores

Subtest	*Subtest score*
Spontaneous Speech	
Information Content	9/10
Fluency	9/10
Total	18/20
Comprehension	
Yes/No Questions	60/60
Auditory Word Recognition	57/60
Sequential Commands	50/80
Total	167/200
Repetition	58/100
Naming	
Object Naming	54/60
Word Fluency	8/20
Sentence Completion	10/10
Responsive Speech	10/10
Total	82/100
Aphasia Quotient	46.6
WAB Aphasia Classification	Conduction aphasia

Appendix 2

Talk is transcribed using a simplified version of the Jefferson transcription system (Sacks, Schegloff, & Jefferson, 1974).

1. (#) : a number in parentheses indicates elapsed time in seconds for pauses 1 second or greater. This device is used between turns at talk between speakers, between two separable parts of a single speaker's talk, and between parts of a single speaker's turn.
2. ? & . : punctuation markers are used for intonation. A question mark indicates rising intonation and a period indicates falling intonation.
3. : : a colon is used as a sound production marker, indicating that the prior syllable is prolonged.
4. - : a short dash indicate a "cut off" of the prior word or sound.
5. (*) : single pairs of parentheses with asterick indicate that transcribers are not sure about the words contained or that the talk was unintelligible.
6. // : the double oblique indicates the point at which a current speaker's talk is overlapped by the talk of another.

Transcription of gaze and gesture

Gaze and gesture transcription is based on a system described by Goodwin and Goodwin (1986).

1. Gaze of the listener is marked below the turn at talk. A line indicates that the listener is gazing toward the speaker.
2. Gaze of the speaker is marked above the turn at talk. A line indicates that the speaker is gazing toward the listener.
3. x : marks the beginning and end of the direction of gaze.
4. ,,, : indicates a shift of gaze from one direction to another.
5. Specific gaze direction is described orthographically through indication of the person or place of the direction of gaze (i.e., mid-distance, away, or initial of person).
6. Gesture of the speaker is described orthographically above the turn at talk.

Note

1. Conversational behaviors of specific interest are in boldface throughout this chapter, with inclusion of transcription markings as necessary for understanding the text. Transcription markings are described in appendix 2.

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