

Communicative Competence in Aphasia: Evidence from Compensatory Strategies

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The field of aphasiology has shown an interesting evolution from a decidedly linguistic orientation, which emphasized "correct" language form and content, to a functional perspective, which incorporates pragmatic as well as linguistic proficiency (Holland, 1975; Wilcox, 1983; Wilcox & Davis, 1978). With the advent of this functional perspective in the 1970s and 1980s, we came to value not only accuracy of communication but also success in getting ideas across. Although this approach to communication in aphasia has been more open-minded, our contention is that an overly narrow definition of communication continues to prevail in aphasiology and to influence judgments of communicative competence. Definitions of communication in aphasia continue to emphasize "conveying ideas" or "exchanging information." Even proponents of a pragmatic orientation define communicative success as getting messages across regardless of how (Davis & Wilcox, 1985; Holland, 1975, 1977, 1982).

This definition captures only one aspect of communication—the *transactional* function, which is transacting an exchange of information. Communication is also *interactional*; that is, much communication serves primarily to establish and maintain social relationships (Brown & Yule, 1983). Often, interactants have nothing substantive to say or no real information to transmit; rather, communication is simply a mechanism for relating to another person. In fact, information exchange is often less important than social affiliation (Brown & Levinson, 1978; Button & Lee, 1987). Therefore, a definition of communicative competence must capture both the transactional and the social or interactional goals of communication. The communication strategies that aphasic individuals employ to promote social affiliation should be no less important

to the aphasiologist than the methods used to convey content. To promote a discussion of this issue, we present in this paper selected data from a larger ethnographic investigation of compensatory strategies in aphasia.

METHOD

We adopted ethnography, a qualitative research methodology, for the present investigation because it provides a rich, authentic description of complex social phenomena within the natural context (Agar, 1986; Damico, Simmons, & Schweitzer, 1993; Geertz, 1973). Specifically, we used Spradley's (1980) ethnographic method to study the compensatory strategies used by two women with nonfluent aphasia. Relevant demographic and clinical data on the subjects, DC and NN, are provided in Table 1.

The data on compensatory strategies used by the two subjects were collected in a wide variety of natural contexts consistent with ethnographic field methods (Agar, 1986; Hymes, 1968; Maxwell, 1990; Spradley, 1980) and in two clinical communication settings. For example, a small sample of the settings observed are listed in Table 2 to demonstrate the contextual variety obtained for the investigation. In addition, multiple data sources established the credibility and authenticity of observations (see Table 3) (Agar, 1986). In other words, repeated

Table 1. Demographic and Clinical Data on Subjects DC and NN

	DC	NN
Age at onset	50 years	49 years
Sex	Female	Female
Race	Caucasian	Caucasian
Etiology	Left CVA	Progressive aphasia
Date of onset	May 1991	Fall 1989
Aphasia	Nonfluent	Nonfluent
Apraxia of speech	Yes	Yes
Right hemiparesis	Yes	Yes
Handedness	Right	Right
Education	12 years	16 years
MLU	3.5	3.3
PICA Overall	12.63	8.85

Note: CVA = cerebrovascular accident; MLU = mean length of utterance; PICA = *Porch Index of Communicative Ability* (Porch, 1967).

Table 2. Sample of DC's Communication Settings Demonstrating the Variety of Contexts Studied

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- Lobby of speech clinic with strangers
 - Therapy session with speech-language pathologist
 - Cafeteria lunch with two strangers
 - Home with a close friend
 - Chinese restaurant with daughter and investigator
 - Barrier activity with a volunteer
 - PICA with speech-language pathologist
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Note: PICA = *Porch Index of Communicative Ability* (Porch, 1967).

Table 3. Sources of Field Data for Ethnographic Investigation

<i>Data Source</i>	<i>Number of Samples</i>	<i>Total Time</i>
Participant observation	16 settings	14 hr. 32 min.
Videotaped observation	22 settings	8 hr. 30 min.
Interviews	13 informants	13 hr. 7 min.
Video replay ^a	5 sessions 11 informants	7 hr. 10 min.

^aVideo replay involved playing videotaped observations for speech-language pathologists (ignorant to the research purposes) to obtain their impressions of compensatory strategies and contexts.

field observations were verified and supported by analysis of videotapes, exhaustive interviews, and video replay sessions with informants ignorant to the purpose of the study.

Based on these data, we derived a *general definition* and *overall functions* of compensatory strategy. Then we analyzed each videotaped conversation to identify every compensatory behavior and to code each occurrence across 37 dimensions of discourse, speaking partner, topic, setting, and partner reaction (see Appendix A for behavioral coding categories). Point-to-point agreement between two judges across a random sample of 189 compensatory strategies was excellent for both strategy identification (.95) and category coding ($M = .94$, range = .84 to 1.00). This behavioral coding provided a very rich source of data that was used, along with the other descriptive data sources, to piece together the variables that influenced the subjects' compensatory strategies and their usage patterns.

RESULTS

A variety of compensatory strategies were identified for each subject. Some of the identified strategies served primarily transactional goals (i.e., to convey information); others served primarily interactional goals (i.e., to regulate the social exchange). Two representative strategies of each subject are discussed to demonstrate how compensations were varied to suit the dual goals of transaction and interaction.

Interactional Compensatory Strategies

Both DC and NN used their own idiosyncratic, yet highly effective, strategies to regulate interpersonal discourse. For example, DC used the utterance "is" (pronounced /ɪs/ with unvoiced sibilant) with remarkable frequency. "Is" represented 63% of her communication turns.

Typically "is" introduced content in DC's utterances. For example, in the following excerpt from a videotape transcript, DC is relating to the observer (O) that because she has a "fasting blood test" early in the morning, she eats a late breakfast in the cafeteria:

O: So before that you can't eat?

DC: No . . . isy. *Is* here . . . [points down] eat. *Is* now . . . eat.

Initially "is" was considered a "filler" or peculiar verbal facilitator; however, ethnographic analysis suggested that "is" served a systematic discourse function. "Is" highlighted propositions by holding DC's turn and signaling coming information. In addition, DC combined "is" with both nonverbal strategies and spoken words. For example, "is" verbally alerted the listener to the approach of gesturally conveyed meaning. In the following exchange, DC's friend is explaining that she does not try to force DC to talk during their visits. DC agrees and proceeds to tell how her friend helps her communicate:

DC: *Is is* good [pretends to write], help me [points to self] isy, *is* [points to friend] isy, *is is* [pretends to write].

Similar to nonaphasic speakers' use of discourse markers in informal social talk (e.g., "you know," "I mean," "oh," "well"), DC used the utterance "is" to maintain organization in her unfolding discourse.

Analysis of occurrence patterns across contexts supported this interactional or regulatory role of "is." For example, a relatively high proportion of "is" to total words was produced during natural, social interactions involving social "chitchat," such as visiting with friends.

During three videotaped situations rated as high in social demands and low in transactional demands, 24% of DC's words were "is," with a narrow range from 22% to 28% (see Figure 1). Contrast these results with the relatively low rate in settings requiring that information be conveyed, such as speech therapy, barrier tasks, or evaluation. Of four situations ranked as high in transactional and low in social demands, DC averaged only 9% "is" productions, with a range of 7% to 11%. Thus, as transactional demands increased and the primacy of social goals decreased, the rate of "is" production diminished.

NN also demonstrated strategies to regulate and promote social interaction. NN used "interest" or "politeness markers" to encourage her partner to carry the burden of communication while maintaining conversational flow. Utterances such as "yes yes yes," "really," "very nice," and "wonderful" expressed agreement with and enthusiasm for her speaking partner's utterances as follows:

- O: Oh, her daughter is getting married?
- NN: *Yes yes yes* [Shakes pointed finger at O].
- O: So they had a party?
- NN: *Yes yes yes, very nice.*
- O: Yeah, I bet probably it goes in waves doesn't it? . . . like everybody's daughter is getting married.

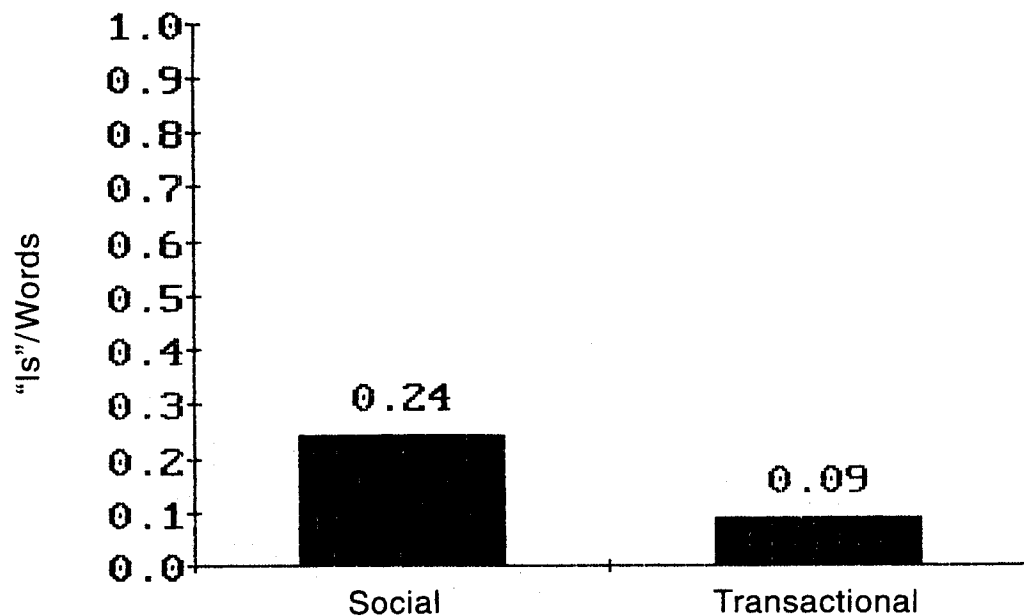


Figure 1. Proportion of "is" to total words for situations rated high social and high transactional.

O: Been to Paris?

NN: Yeah . . . uh . . . *really*.

O: Oh, I was just talking to my sister about Europe. that . . . and we said ya know we've never been to Europe.

NN: *Very nice*.

O: She said we should go take a trip to Europe.

NN: Oh . . . *really nice*.

O: So you recommend Paris huh?

NN: *Very nice!*

NN and her husband had gone to a party. Her husband has asked NN if she talked to anyone at the party. She replies that she talked a little:

O: You talked just a little bit?

NN: Yes.

O: Mostly "uh uh," "really," "wonderful" . . .

NN: *Yes yes* [points to O, laughing].

O: "All the time" and "good for me"!

NN: *Really*. [they laugh].

Repetition of "yes yes yes" and utterances such as "nice" kept NN in the communication exchange. Moreover, speaking partners reported that this strategy definitely encouraged them to continue talking, and promoted a lively and enjoyable, albeit informationally asymmetrical, conversation.

Again, the pattern across contexts supported an interactional role for interest markers (see Figure 2). Interest markers represented 50% of words during three videotaped situations judged highly social (range = 45% to 57%); however, only 10% of words were interest markers during highly transactional conditions (range = 4% to 16%). Thus, NN complied with expectations when message transmission was the goal by attempting to provide content. When social affiliation was the goal, NN spared her partner the agony of laboring through multiple repair sequences; rather, she used interest markers to promote an enjoyable interaction and encourage her speaking partner to talk.

Transactional Compensatory Strategies

Each subject demonstrated a graphic compensation that functioned primarily to convey information. DC wrote key words; NN typed words on a pocket computer. Although successful, both strategies showed a highly selective and interesting usage pattern.

For example, DC used writing in only five of nine settings videotaped. Her highest percentage of writing, 19% of her turns, occurred

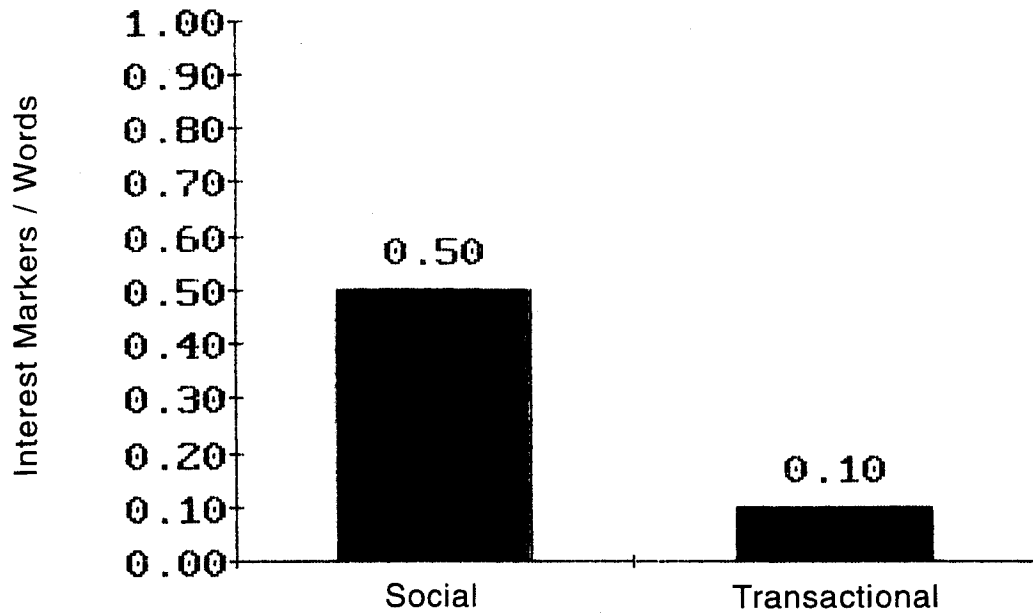


Figure 2. Proportion of interest markers to words for situations rated high social and high transactional.

during a barrier activity when she was required to describe pictures not visible to her partner (see Table 4). Three percent of DC's turns with familiar, "comfortable" partners and contexts involved writing. She avoided writing in public or with unfamiliar partners. She wrote only while seated at a table, and never while eating meals. DC clearly discriminated based on communication goals and social expectations.

Similarly, NN never used computer writing in public or during social chitchat, where she depended more on social strategies (see Table 5). Graphics occurred frequently during barrier tasks (48% of turns). Selective use is highlighted in interactions between NN and her therapist. Graphics represented only 3% of turns during a social conversation with her therapist but 12% of turns during a PACE (Promoting Aphasic Communicative Effectiveness) therapy activity (Wilcox & Davis, 1978).

Interestingly, although both subjects always carried their graphic "props," the bias to use graphics mainly in familiar, comfortable transactional situations prevailed across all contexts studied. Moreover, the patterns refuted the contention that usage reflected limited generalization of training. In fact, these data, along with the complete ethnography, demonstrated that *contextual social constraints* dictated patterns of usage; that is, the subjects varied their compensatory strategies to suit their communication goals and social contexts. When transmit-

Table 4. Percentage of Turns in Which DC Used Writing

<i>Situation</i>	<i>Writing Turns/Total Turns</i>
Barrier activity/evaluation (High transactional, familiar setting)	19%
Conversation with speech-language pathologist	2%
High social, low stigma situations (High solidarity ratings, familiar, high comfort)	3%
Public situations (Low solidarity ratings, unfamiliar, low comfort)	0%

Table 5. Percentage of Turns in Which NN Used a Computer

<i>Situation</i>	<i>Computer Turns/Total Turns</i>
Barrier activity/evaluation (High transactional, familiar setting)	48%
PACE therapy	12%
Conversation with speech-language pathologist (High social, high transactional)	3%
Social conversation, low transactional, low stigma (High solidarity ratings, familiar, high comfort)	0%
Public situations (Low solidarity ratings, unfamiliar, low comfort)	0%

Note: PACE = Promoting Aphasic Communicative Effectiveness (Wilcox & Davis, 1978).

ting information was a high priority, transactional strategies were employed. When interpersonal enjoyment was the primary goal, regulatory strategies predominated. Overt and potentially stigmatizing communicative behaviors (writing or computers) were eliminated in unfamiliar or public contexts regardless of transactional loading.

CONCLUSION

Compensatory strategies contributed markedly to both subjects' ability to interact in social settings. Furthermore, strategies were designed both for conveying information and for affiliating socially. Not only did these aphasic subjects demonstrate social competence in their creation of compensations, but they also flexibly applied their knowl-

edge to adjust transactional and interactional strategies to foster social acceptance, to fit in, to look presentable or okay, and to meet the social expectations of other people. In other words, they purposely used some strategies in some contexts and other strategies in other contexts. In fact, their communicative competence sometimes dictated that they avoid using strategies on which their therapists had spent considerable effort. Frequently, the subjects preferred their own idiosyncratic methods of overcoming social barriers imposed by aphasia.

These two subjects' flexible application of compensatory strategies in the service of dual goals of communication raises several important implications for aphasia management. First, definitions of communication that emphasize information exchange might blind therapists to important social contextual influences on patients' behavior. For example, studies of generalization must take into account the social communicative competence of some patients. We as therapists have been cautioned not to "expect" generalization; perhaps, we should expect patients *not* to generalize certain strategies across contexts. In other words, sometimes "looking okay" is better than "getting the idea across." Sensitivity to the patient's perspective and observation of patients in various contexts will inform therapists which goal takes precedence.

Second, if some patients are socially competent enough to adjust communication to suit the context, then traditional methods of sampling communication in aphasia might provide a skewed view of communication. Such methods of sampling might not elicit important compensations or might not provide a complete picture of communication. In such cases, greater emphasis on naturalistic, descriptive observation is needed (Secord & Damico, 1992).

Finally, the results of this investigation argue for incorporating a sociocultural perspective into the study of aphasia. Without a clear understanding of social goals and how these are realized in different contexts, therapists cannot guarantee efficacious, ecologically valid treatment. Professionals must give more than lip service to preparing people with aphasia for participating in a social world by adopting methodologies and management strategies that address the complicated interwoven tapestry of variables that constitute human social communication.

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APPENDIX: BEHAVIORAL CODING CATEGORIES

Discourse Categories

Speech act
 Strategy initiator
 Situation tempo
 Discourse key
 Goals of strategy
 Spontaneity
 Accompanying modes

Speaking Partner

Familiarity
 Role
 Relative power
 Knowledge of aphasia
 Gender
 Age
 Comfort with subject
 Occupation
 Solidarity

Listener Reaction

Discourse consequences
 Mood of response

Setting Categories

Physical factors
 Formality
 Number of people
 Distractibility
 Predictability
 Presence of investigator
 Presence of speech-language pathologist
 Location

Topic Categories

New versus old information
 Topic introduction
 Interest of subject
 Technicality
 Abstractness
 Emotional load of topic
 Structural complexity

Success

Appropriateness
 Effectiveness
 Efficiency
