

Coverbal Behavior and Perceptions of Organicity

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Many clinicians have shared the observation that communication "does not proceed normally" after right hemisphere damage (Moscovitch, 1981; p. 54). Varying degrees of dysarthria or aberrations in the content of their verbal expression only partly accounts for what has been described broadly as a disturbance in communication "style" in patients with nondominant hemisphere disease (Myers, 1979; Simmons, 1980). We don't yet have a good grasp of the nature of the problems, but there are a number of reports of reciprocal differences between right and left hemisphere injured patients in their abilities to display and understand certain nonverbal elements of communication (Alajouanine and Lhermitte, 1963; Beyn, 1958; Bruyler, 1981; Buck and Duffy, 1980; DeKovsky, Heilman, Bowers and Valenstein, 1980; Heilman, Scholes and Watson, 1975; Moscovitch and Olds, 1982; Ross and Mesulam, 1979; Ross and Rush, 1981; Suberi and McKeever, 1977). These studies point to deficits in affective expression and affective comprehension, decreased facial expression and eye contact, and a lack of appropriate responses to conversational turn-taking signals after right hemisphere injuries. These nonverbal disturbances could potentially lead to misinterpretations of a message or, at the very least, disturb some of the naturalness of the interaction. Conversely, affective expression, coverbal behavior and a demonstration of awareness of "what is rude and what is polite" (Holland, 1977, p. 171) appears to be retained among aphasic speakers (Beyn, 1958; Chester and Egolf, 1974; Holland, 1975; Katz, LaPointe and Markel, 1980; Scheinberg and Holland, 1980). The literature suggests to us that part of the communication disorders of right hemisphere damaged persons and part of the communicative competencies of aphasic persons is nonverbal. So, we reasoned that if we were to somehow ignore the speech or language errors, the patient with aphasia ought to look more like a normal communicator than patients with right hemisphere damage.

The present study examines this assumption. We questioned whether or not a group of judges could reliably identify left hemisphere damaged aphasic (LHDA) and right hemisphere damaged (RHD) subjects as brain injured without the benefit of hearing the verbal markers or seeing the physical evidence (i.e., hemiparesis) for cortical injuries. We predicted that an aphasic group would be more likely than a RHD group to be identified as normal when judges could observe, but not hear, them talk.

METHODS

Subjects. To test this hypothesis we recognized that several precautions in subject selection were needed. Research in nonverbal communication suggests that several factors, such as sex, race, age and occupation might

influence the degree of facial movement on either side of the face, self-disclosure tendencies and affiliation with an interviewer (Alford and Alford, 1975; Buck, Savin, Miller and Caul, 1972; Knapp, 1972). There are a few studies suggesting that patients with anterior and posterior cortical injuries differ in their nonverbal expressive abilities (Feyreisen and Seron, 1983; Ross and Rush, 1981), so the comparison groups would need to have (roughly) equally heterogeneous lesion locations. Since we were interested in observer reactions to subjects during speech, we would need to restrict our criteria for aphasic subjects to individuals with sufficient verbal output to perform the sampling task. Finally, to test the validity of the judgment task, we would need to include a group of non-neurologically-impaired subjects in the sampling.

Thirty male subjects were selected for videotaped interviews. The subjects included three groups--ten patients with right hemisphere cortical lesions (RHD), ten patients with left hemisphere cortical lesions and aphasia (LHDA), and ten non-neurologically-impaired persons who were either volunteers from the orthopedic ward or the Medical Center's Volunteer Service.

The three groups were matched as closely as possible by age, race, years of formal education and current or previous occupations. The mean ages and age ranges for the RHD, LHDA and normal groups were: 57.4, 39-47; 60.6, 50-70; and 59.9, 49-74; respectively. The mean number and ranges of the years of formal education for the three groups was: 13.4, 12-18 for the RHD group; 13.6, 11-18 for the LHDA group; and 14.2, 8-18 for the normal group. Table 1 summarizes the occupational, race, and handedness histories in the three groups. None of the RHD subjects was left handed. One of the aphasic subjects and two of the normal subjects were left handed. There was one black and nine caucasian subjects in each of the three groups. The variety of occupations reported by the subjects within each group was similar, with roughly equivalent numbers of professional, manual labor, sales and career military occupations.

Tables 2 and 3 summarize the subject backgrounds of the RHD and LHDA groups relative to the primary location of lesions. These designations were based on CT scan reports in all but three cases, where the neurologist's stated findings were used to determine location of lesion. Neither of the brain injured groups contained predominantly anterior nor predominantly posterior injuries. The aphasic group contained an equivalent number of patients with relatively fluent or relatively nonfluent speech. These distinctions were made based on the subjects' speech articulation abilities. Nonfluent subjects had a prominent apraxia of speech. None of the aphasic subjects would be described as having global aphasia and none of the fluent subjects had Wernicke's aphasia. All of the aphasic patients had at least some type and degree of comprehension deficits. PICA (Porch, 1972) Overall percentiles for the aphasic group ranged from the 63rd to the 94th percentile and the mean for the group was 78.4.

Since we anticipated that facial motor weaknesses might influence the judgments, but we could not reasonably restrict the study only to patients without marked facial weakness, half of the subjects in each of the brain injured groups had either right or left side facial weakness noted both in repose and when asked to smile.

Videotaping Procedures. Prior to the videotaping, each subject was asked to select three topics to discuss or relate in an expository (story-telling) context. Videotaped recordings (VTRs) were made of each of the

Table 1. Subjects' occupation, race and handedness.

Group Subj.#	Occupation	Race	Handedness
Aphasic			
002	Speech Pathologist	Cauc.	Left
003	Career Coast Guard	Cauc.	Right
004	Salesman	Cauc.	Right
008	Owned Business	Cauc.	Right
010	Teacher	Cauc.	Right
012	Salesman	Cauc.	Right
018	Sawmill Worker	Cauc.	Right
020	Maintenance Supervisor	Black	Right
021	Postal Clerk	Cauc.	Right
028	Cab Driver	Cauc.	Right
RHD			
009	Construction Worker	Cauc.	Right
011	Salesman	Cauc.	Right
015	Commercial Fisherman	Cauc.	Right
016	Accountant	Cauc.	Right
017	General Contractor	Cauc.	Right
022	Career Navy	Cauc.	Right
023	Salesman	Black	Right
024	Motel Manager	Cauc.	Right
026	Social Worker	Cauc.	Right
034	Career Coast Guard	Cauc.	Right
Normal			
013	Career Army	Black	Left
014	Chaplain	Cauc.	Right
019	House Painter	Cauc.	Right
025	Career Navy	Cauc.	Right
027	Salesman	Cauc.	Right
029	H.S. Counselor	Cauc.	Right
030	Construction Worker	Cauc.	Right
031	Teacher	Cauc.	Right
033	Real Estate Broker	Cauc.	Left
035	Research Assistant	Cauc.	Right

Table 2. Lesion localizations and months post onset of subjects in the right hemisphere damaged group.

Subject #	Location of Infarction	MPO
009	Posterior	3
011	Anterior*	60
015	Anterior*	6
016	Anterior/Posterior*	3
017	Posterior	42
022	Anterior/Posterior*	3
023	Posterior	3
024	Anterior*	3
026	Anterior/Posterior	36
034	Anterior	48
mean =		20.7
range =		3 - 60

*Subjects with facial asymmetry

Table 3. Lesion localizations, type of aphasia, PICA Overall percentiles and months post onset for the aphasic subjects.

Subject #	Location of Lesion	Type of Aphasia	PICA O.A. %ile	MPO
002	Posterior	Fluent	86	5
003	Anterior/Posterior*	Nonfluent	63	51
004	Posterior	Fluent	83	17
008	Posterior	Fluent	93	11
010	Anterior*	Nonfluent	77	14
012	Anterior*	Nonfluent	78	36
018	Posterior	Fluent	75	38
020	Anterior*	Nonfluent	73	12
021	Anterior/Posterior*	Fluent	67	5
028	Anterior	Nonfluent	88	3
mean =			78.4	19.2
range =			63 - 94	3 - 51

*Subjects with facial asymmetry

subjects with the camera in view over the right shoulder of the interviewer. During these recordings, the full face, neck, shoulders and mid-chest of the subjects were viewed while they were speaking.

Three conversational samples were elicited from each of the 30 participants. These ninety samples were then randomized across subjects and topics and a technician edited each sample to precisely 90 seconds each. Although

both audio and video portions were recorded during the interviews, the composite tapes contained the video-only (no sound) portion of the recordings.

Judging. Nine students enrolled in a masters or pre-masters program in speech-language pathology participated as judges. The judges denied having clinical practicum experience or close personal familiarity with brain injured adults. The composite VTRs were shown to the judges at one sitting with two breaks interspersed during the viewings. The judges were instructed in the following manner:

"You will be shown a series of videotaped recordings of some brain injured persons and persons without brain injuries engaged in story-telling conversations.

The people who have volunteered to be recorded are inpatients, outpatients, or volunteers within this medical center. Most of the people who volunteered to participate will be wearing hospital pajamas. You will not hear the speakers talk but will be shown the picture-only part of the recordings. I want you to look at each person as he speaks and when the sample ends indicate on your response forms if you felt the speaker was or was not brain injured. You can circle one of five designations on the forms [see Appendix A]. Based on your impressions, circle 'definitely yes' or 'probably yes' when you think the subject was brain injured, 'definitely no' or 'probably no' when you think the subject was not brain injured or 'uncertain' if you cannot make a definite choice.

After you have made your judgments, write a short explanation for or description of the reasons you chose that judgment. Write down the feature or features that caused you to circle 'yes' or 'no' or made it difficult for you to pick a category."

After being instructed in the task, three practice samples were reviewed (these were not part of the experimental samples) and the judges were encouraged to ask any questions they may have. A facsimile of the judging form is provided in Appendix A. During the judging one of the normal subjects was recognized by several of the judges, necessitating deletion of that subject from the data analysis.

DATA ANALYSIS

Reliability. Computations of percent agreement were made for the overall total (87 samples) and totals for each of the three groups (27 samples from the normals and 30 each from the RHD and LHDA groups). To determine intra-subject agreement (that is, to what extent the three samples for each subject received essentially the same score distributions) the three samples were compared by counting the number of times frequency counts for yes, no and uncertain scores were the same (plus or minus one).

Intergroup Comparisons. The occurrences of "yes" and "no" designations were compared between groups with 2 x 2 contingency tables (Chi square). Figure 1 shows how the three groups compared on occurrences of "yes," "no" and "uncertain" judgments. Finally, the written explanations or descriptions given by the judges as reasons for their designations were reviewed and summarized, noting the type and number of times different comments appeared relative to each of the three groups.

Intragroup Comparisons. The mean scores for those patients with primarily anterior versus primarily posterior injuries within the RHD and LHDA groups were computed for comparisons.

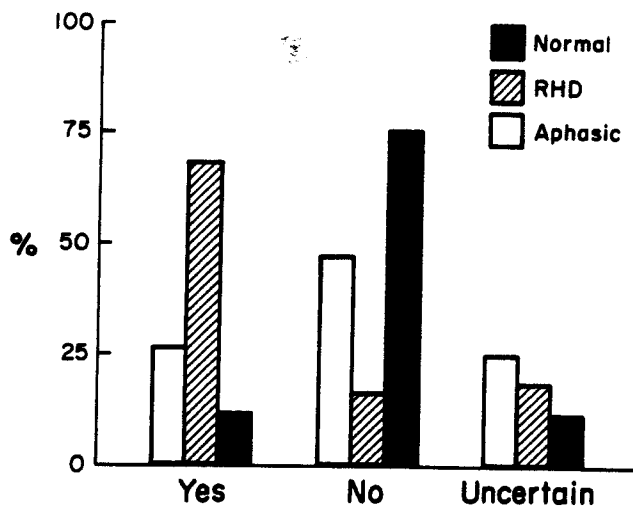


Figure 1. Percent occurrences of "yes", "no", and "uncertain" judgments across groups.

RESULTS

Reliability

Between Judges. Within the overall judgments for 87 samples (one subject was deleted) reliability was 67% (59/87). The interjudge agreement percentages differed for the three groups. There was 81% agreement for samples from the normal subjects, 73% agreement for samples from the RHD subjects, and 43% agreement for the aphasic subjects' samples. Within Subjects. Intrasubject reliability was 81% (196/243) for the repeated samples.

Intergroup Comparisons. The percents of times "yes," "no" and "uncertain" designations were given to each group is illustrated with Figure 1. The normal group received 28 "yes," 186 "no" and 29 "uncertain" designations. The RHD group received 181 "yes," 43 "no," and 46 "uncertain" designations and the LHDA group received 71 "yes," 131 "no," and 68 "uncertain" designations from the judges. These data were initially examined with "uncertain" totals added to the "yes" totals for the normals and to the "no" totals for the two brain injured groups. When comparing these totals as false positives, false negatives, true positives or true negatives, the differences between the aphasic and normal groups were not significant (chi square = .40; df 1), but the RHD group differed significantly ($p < .001$) from both of the other groups. When chi square comparisons were made between the three groups for only the "yes" and "no" scores, each group was found to differ significantly ($p < .001$) from the other two. (Chi square values were 198.47 for the normal versus the RHD group comparisons, 26.69 for the normal versus the LHDA group comparisons, and 89.75 for the RHD versus the LHDA group comparisons.)

Intragroup Comparisons. There were negligible differences between the means for "yes," "no" and "uncertain" frequency scores in the RHD patients

with anterior lesions (n = 4) versus the RHD patients with posterior lesions (n = 3) and the LHDA patients with anterior lesions (n = 4) versus the LHDA patients with posterior lesions (n = 4). The three aphasic subjects with the lowest PICA overall percentile scores (subjects 003, 020, and 021) received more consistent and frequent "yes" designations from the judges than the other seven aphasic subjects with less severe impairment.

Judges' Descriptive Comments. Table 4 summarizes the judges' explanations for their "yes" choices. Comments that were similar in nature are grouped by categories and the number of times a particular comment or related comment appeared on the response forms is totaled across groups. Judges appeared to identify less spontaneous facial expression, facial asymmetry, unusual body posture, reduced upper body movement, and slowed speech as indicative of brain injury in the RHD group. This group was far more likely to have comments made regarding their mood or perceived state of mind than the aphasic or normal groups. When the aphasic subjects were perceived to have organic impairment, the judges most often commented on behaviors suggestive of speech hesitations (e.g. pausing, groping for words, or struggling with words). Overall, the judges appeared to perceive the RHD group as less animated than the aphasic subjects.

DISCUSSION

This study examined perceptions of organicity on the part of judges who could see but not hear brain injured and normal individuals speak. We went to a lot of work to find some evidence for the assertion that nonverbal markers for organicity would be more apparent in RHD patients than in aphasic patients.

Although efforts were made to assure that there were similarly heterogeneous lesion locations between the two brain injured groups, lesion size comparisons were not made; consequently, there may have been a greater number of patients with more extensive brain injuries in the RHD group. The PICA Overall scores of our aphasic subjects could be indicative of relatively small lesions in that group. Unfortunately, we lack an equivalent assessment of the severity of cognitive problems after RHD. Subjects in both groups were beyond three months post ictus, but the right hemisphere damaged group had more patients in earlier stages of recovery than the LHDA group, which may have made a difference in the patients' behavior.

When interpreting the findings, we recognize that the judging task was highly subjective, and that the judges themselves ought not be considered novice or untrained observers nor were they representative of a general population.

Family Counseling After RHD. These findings suggest several areas of consideration for the clinician. For the patient with RHD, this study, unfortunately, adds to their many indignities. In light of this and other evidence of reduced nonverbal animation and disturbed coverbal behavior after RHD, families of patients with RHD should be counseled regarding potential interpersonal communication problems. Defining the problems associated with brain injuries is not nearly as difficult as helping families and patients live with those problems. This is an important area for concern and collaborative work between neuropsychologists and speech-language pathologists.

Counseling Patients with Aphasia and Their Families. As in other studies where coverbal behavior or facial expression have been examined (Buck and

Table 4. Summary of judges' comments after "yes" designations.

Judges' Comments	Number for Each Group		
	Aphasic	RHD	Normal
<u>Face</u>			
Lack of facial expression	2	21	2
Lack of eye movements; no eyebrow movement; little expressions with the eyes	4	12	1
Little mouth movement	2	9	1
Facial weakness	3	17	3
Facial asymmetry	6	16	4
Little/no eye contact	0	7	0
<u>Head/Body Posture</u>			
Unusual body posture; stiff or rigid posture	0	5	1
Doesn't move shoulders, head or body	1	10	0
Head drooped; head cocked to one side; funny head posture	1	10	1
Too much movement	1	0	0
<u>Affect/Mood or Mental State</u>			
Looks "vacant," "blank," "slow" or "drugged"	1	10	1
Looks "confused"/"spacey"	0	8	0
Looks angry/bitter	1	11	0
Looks sad/depressed	1	4	0
Looks frightened/scared	0	4	0
Looks like he's "snarling;" has a "mean, nasty expression"	0	2	0
Looks "silly"	1	1	0
Looks tired/"stressed"	1	6	0
<u>Speech-Related</u>			
Speech is too fast; looks like he's "spitting out the words"	0	2	0
Speaking too slowly	6	17	2
Pauses too long	2	2	0
Gropes for words	8	1	1
Struggles with words	9	0	0
	[50]	[175]	[17]
No comment or unclassifiable vague remark (e.g. "just looks like it")	21	6	11

Duffy, 1981; Katz, LaPointe and Markel, 1980), the aphasic subjects in this study, more often than not, appeared to be normal communicators. Facial asymmetries or apparent hesitations during speech were noted as indicators of organicity in the aphasic group but there were few comments similar to those made about the RHD group relative to their reduced animation and perceived disturbances in mental state or personality.

Initially we were heartened to find that the aphasic group was perceived to behave much like normal speakers. The aphasic person's ability to use coverbal cues undoubtedly enhances some aspects of their communication. But we wonder if this might, in some respects at least, be a mixed blessing. If an aphasic person displays a normal amount of eye contact, smiling, frowning, raising the eyebrows, and so forth (Katz, LaPointe and Markel, 1980); if he or she demonstrates knowledge of "what is rude and what is polite" (Holland, 1977; p. 171) and gives the outward appearance of many things "normal," then a conversation may seem to be occurring when it isn't. Animation can give the impression of comprehension when comprehension is lacking.

Although we would not for a moment deprive an aphasic speaker of using everything he or she has to communicate, we suspect that looking "normal," because of facility with coverbal behavior, has at least a few disadvantages. Aside from the potential for masking the aphasic person's deficits or distorting the conversational partner's perceptions and expectations, there may be a tendency, and perhaps a prevalent tendency, to keep conversations with aphasic persons within the spheres where they will most closely approximate normal communicators. Aphasic individuals probably have fewer opportunities for substantive communication than they want, or deserve to have, because conversations will proceed smoothly and more like "normal" when they remain within the sphere of automatic, social exchanges -- where eye brow raises, smiles and a few verbal phrases will suffice. It may be valuable to counsel those aphasic patients with mild to moderate impairments (and their families) away from the tendency to retreat from aphasia. The patient, the family and the clinician should be encouraged to move into conversational spheres where impairment is permissible. We may need to remind both aphasic patients and ourselves that struggling with words is not normal but quite acceptable, and from time to time they will have to be aphasic if they are going to continue to talk.

APPENDIX A

Facsimile of Judges' Scoring Form

S#	Definitely Yes	Probably Uncertain	Probably	Definitely No	Why?
(1)	1	2	3	4	5 _____
(2)	1	2	3	4	5 _____
.					_____
.					_____
(90)					_____

REFERENCES

- Alajounanine, T. and Lhermitte, F., Nonverbal communication in aphasia. In A. DeReush and M. O'Conner (Eds.), Disorders of Language. Boston: Little-Brown Co., 1963.
- Alford, R. and Alford K.F., Sex differences in asymmetry in facial expression of emotion. Neuropsychologia, 19, 605-608, 1981.
- Beyn, E.S., Peculiarities of thought in aphasic patients. Language and Speech, 1, 233-249, 1958.
- Bruyler, R., Implications differentielles de hemispheres cerebraux dans les conduites emotionnelles. Acta Psychiatrica Belgica, 80, 266-284, 1981.
- Buck, R. and Duffy, R.J., Nonverbal communication of affect in brain damaged patients. Cortex, 126, 351-362, 1980.
- Buck, R., Savin, V.J., Miller, R.E. and Caul, W., Nonverbal communication of affect in humans. Summary of the Proceedings of the 77th Annual Convention of the American Psychological Association, 1972.
- Chester, S. and Egolf, D., Nonverbal communication in aphasia therapy. Rehabilitation Literature, 35, 231-357, 1973.
- Dekovsky, S.T., Heilman, K.M., Bowers, D. and Valenstein, E., Recognition and discrimination of emotional faces and pictures. Brain and Language, 9, 206-214, 1980.
- Feyereison, P. and Seron, X., Nonverbal communication and aphasia: A review. Brain and Language, 16, 191-236, 1982.
- Heilman, K.M., Scholes, R., and Watson, R.T., Auditory affective agnosia: Disturbed comprehension of affective speech. Journal of Neurology, Neurosurgery and Psychiatry, 36, 69-72, 1975.
- Holland, A.L., Some practical considerations for aphasia rehabilitation. In M. Sullivan and M. Kommers (Eds.), Rationale for Adult Aphasia Therapy, University of Nebraska Medical Center, 1977.
- Katz, R.C., LaPointe, L.L. and Markel, N., Coverbal behavior and aphasic speakers. In R.H. Brookshire (Ed.), Clinical Aphasiology: Conference Proceedings, 1978. Minneapolis, MN: BRK Publishers, 1978.
- Knapp, M.L., Nonverbal Communication in Human Interaction. New York: Holt-Rinehart-Winston, 1972.
- Porch, B.E., Porch Index of Communicative Abilities. Palo Alto, CA: Consulting Psychologists Press, 1972.
- Moscovitch, M., Right hemisphere language. Topics in Language, 1, 41-61, 1981.
- Moscovitch, M. and Olds, J., Asymmetries in spontaneous facial expressions and their possible relationships to hemispheric specialization. Neuropsychologia, 20, 71-81, 1982.
- Myers, P., Profiles of communication deficits in patients with right hemisphere damage: Implications for diagnosis and treatment. In R.H. Brookshire (Ed.), Clinical Aphasiology: Conference Proceedings, 1979. Minneapolis, MN: BRK Publishers, 1979.
- Ross, E.D. and Mesulam, M.M., Dominant language functions of the nondominant hemisphere: Prosody and emotional gesturing. Archives of Neurology, 36, 144-148, 1978.
- Ross, E.D. and Rush, A.J., Diagnosis and neuroanatomical correlates of depression in brain damaged patients. Archives of General Psychiatry, 38, 1344-1354, 1981.
- Schlenberg, S. and Holland, A.L., Conversational turn-taking in Wernicke's aphasia. In R.H. Brookshire (Ed.), Clinical Aphasiology: Conference Proceedings, 1980. Minneapolis, MN: BRK Publishers, 1980.

- Simmons, N., Communication problems associated with right hemisphere lesions. Paper presented to the American Academy of Physical Medicine and Rehabilitation, Washington, D.C., 1980.
- Suberi, M. and McKeever, M.F., Differential right hemispheric memory for emotional and nonemotional faces. Neuropsychologia, 15, 757-758, 1977.

DISCUSSION

- Q: My first question is about the results. You said that each group differed significantly from all other groups, and it occurred to me that in a way your aphasic group was at a disadvantage because you were comparing a subgroup of left cortically damaged patients with a broader group of right cortically damaged patients. Was that correct?
- A: Yes.
- Q: So, that if you had not made aphasia a requirement for inclusion in that group your left cortically damaged patients might have looked more normal and would not have differed significantly.
- A: I think we probably put the RIGHT hemisphere damaged at a greater disadvantage because these were higher level aphasic patients and that indicates to me that they might not have had larger lesions and we don't have comparable (PICA type) measures for the right hemisphere damaged subjects. So, we don't have a measure of how severe their cognitive problems were. And we did not have lesion size comparisons.
- C: Having come to similar conclusions as you did that normal coverbal behavior can mask an auditory comprehension problem and also let the aphasic patient look normal in terms of communication, I have counseled aphasic patients to request repetitions of things that are said to them and counseled them to ask for permission when they are trying to find the word. I think these people get very heavily penalized by people in conversations. They come back to me and say, I tried to do what you said and people looked at me funny and they walked away in the middle of what I was trying to say and they asked me if I was retarded when I asked them to repeat something more than once. It seems like it's a trade off. As speech pathologists we are interested in information processing, we're interested in whether propositional content of the message gets across, receptively or expressively. And, sometimes we go too far in emphasizing the propositional content at the expense of the pragmatics of the interchange.
- A: When I did this I simply wanted to see if other people saw these tapes the same way I did. So, at first, I was pleased to see the aphasic patients do so well, with many of them judged to be normal. But after I thought about what that means when I interact with aphasic patients, I started paying attention to what I do in hallway conversations, and I found that I tended to force them into interactions where I had control, where they were responding where their facial expressions, short phrases, and that sort of thing worked for them and for me. I wonder if that isn't what happens a lot to people with aphasia. They can interact very nicely with us as long as we do nothing to exaggerate the disorder. We do a lot of things in treatment to remind aphasic patients that there is something negative and wrong with being aphasic. We try to create an environment,

provide cues and do just about everything we can think of to make their language as efficient as it can be. These people are going to be aphasic the rest of their lives. We are going to have to spend some time in treatment telling them that it's o.k. and they are going to have times when things aren't going to work well for them.

Q: Were the aphasic patients who were more severe less normal?

A: Yes. The three patients with the lower PICA overall percentile scores were more frequently noted to be brain injured than the other aphasic patients.

Q: I guess I have a problem with that, because if they are more aphasic they wouldn't be moving their lips as much.

A: Right. And, there are a lot of coverbal things that people do when they are looking for words. The aphasic patients do those things normally, it's just that they do more of it. Like, look up, pause, gesture with their hands while they are looking for a word or trying to pronounce a word. I'm sure those were cues the judges saw.

C: They take a longer time doing that, too. Not just more frequently.

Q: I think your study points out very nicely the need to teach the compensatory strategies of requesting clarifications and repetitions but I also feel that once we're sure that those patients can use those strategies to get clarification, etc., that they make the choice about doing so. Because in a lot of the communicative contexts that aphasic patients find themselves in, it may be more important to appear normal than to get some of the messages. I know that my patients in casual conversations would rather appear normal than request clarification for something.

A: I think I would do that too. I wouldn't want to show my moles to everyone. A few people, maybe, but not everyone. I think a problem can arise though. One example came up in our clinic recently when a patient said his wife couldn't understand him and he had more problems communicating with her at home than anyplace else. He said he could talk to people in the grocery store and had no problems and he couldn't understand why he had trouble talking with his wife when he could talk to anybody in the grocery store. I guess that aside from all of the language aspects of therapy, somewhere in there needs to be some explanation about what it is to live with aphasia. This patient needed to understand WHY superficial conversations in a grocery store were easier for him than planning a vacation with his wife. So, that has to be part of the process.