MEDICINE, LAW, AND EDUCATION: A JOURNEY INTO APPLIED LINGUISTICS

What do medicine, law, and education have in common? Each involves specialized communication between a practitioner and members of the general public, within a distinct social context. Each is, further, the subject of a new area of study--applied linguistic analysis.

In recent years the role of linguistics within the field of anthropology has focused increasingly on the study of communication behavior and its relationship to the culture as a whole. This approach can be used not only to further the research interests of anthropologists but also to address and possibly solve common everyday problems in communication linguistics. New subfields in linguistic behavior have arisen, such as sociolinguistics, the study of structure and use of language as it relates to its social setting; and psycholinguistics, the study of structure and use of language behavior, how it is learned, produced, and understood. The application of studies of linguistics to real life problems is the concern of applied linguistics. Traditionally, applied linguistics has dealt almost exclusively with language learning and teaching. Recently, however, its focus is being expanded to other issues such as the ones described in this Anthro Notes article, based on published papers of Georgetown University linguistics professor and chairman Roger Shuy. As an educator, a scholar, and a consultant, Shuy reveals some of
his and other researchers' latest applied psycho- and socio-linguistic communication research in the fields of medicine, law, and education.

Language and Medicine

In his article "Linguistics in Other Professions," Shuy points out that recent linguistic work on medical communication assumes that talk between patients and doctors has "deep clinical significance." The research involves the analysis of "the speech event itself rather than the physician's interpretation of the patient's responses."

The medical profession claims that 95% of treatment success depends on the physician's ability to elicit accurate information from the medical interview. Physicians' use of tenses, hedges, euphemisms, ambiguous adjectives, intensifiers, tag questions (questions that almost invariably influence the respondent to agree with the speaker's proposition, whether or not one wants to agree), and question-answering avoidance techniques influence patient behavior and can lead to misunderstandings between the doctor and patient that grow out of "differences in experience, needs, goals, and world knowledge."

Shuy and his colleagues conducted research on cross-cultural communication problems of black, inner-city patients and their physicians, analyzing their attitudes toward medical delivery service and the communication breakdowns that occurred in the tape recorded interviews. "They discovered that vernacular English speaking patients worked very hard at learning the vocabulary, question-response routines, and perspectives of their physicians during the interview, but that there was little, if any, reciprocal learning attempted or evidenced by their physicians." In addition, the doctors' categories of questions "severely limited the patients' opportunities for providing adequate and even accurate information." From over 100 taped interviews, they concluded that the "tremendous asymmetry in such communication... almost assured misunderstanding and miscommunication."

According to Shuy, the impact of this recent linguistic research on medical communication has been meager. One reason may possibly be that the "field of medicine has not felt a particularly strong need for it." (Shuy, 1984).

Language and the Law

Language in the Courtroom

One area of linguistic study focuses on written and spoken language in the courtroom. Such a study "range[s] from the perceptions and evaluations of jurors to the actual language used by witnesses, judges, attorney, and defendants, to the language of question asking, jury instructions, defendant's constitutional rights, and interpreter competence." One example of jurors' perceptions in the courtroom setting is an experiment carried out by a Duke University research team.

When a witness was permitted to respond at length with considerable freedom, that testimony (called "narrative testimony") elicited more favorable responses from jurors than did the more common courtroom style of highly controlled, brief answer testimony. ...Interestingly male responders believed that the attorneys who [interrupted and talked over the witnesses] the most were the most skillful and competent while the female subjects disagreed, ranking such attorneys as less competent and less likeable. (Shuy, 1986.)
E. Loftus and colleagues conducted work on witnesses' responses to the wording of an attorney's courtroom question. Loftus found that the lawyer's question,

"About how fast were the cars going when they smashed into each other?" yielded consistent responses of higher speed estimates than the question, "About how fast were the cars going when they hit each other?" Likewise, a week later, the subjects in Loftus' experiment were asked whether or not they had seen any broken glass in the filmed accident used in her experiment. Those who had been asked the question with "smashed" in it responded positively twice as frequently as those who had been asked the question with "hit" in it, even though the film showed no broken glass at all. Other experiments by Loftus included mention, by the experimenter, of objects not in the film. Seventeen percent of the subjects who were asked questions containing mention of that object reported later on that they had seen it. This research by Loftus and others on the psychology of eye witness testimony and memory is of great significance to both linguists and legal practice. It demonstrates, for one thing, how language form and content affect mental processes such as situation and memory of important details, and it strongly suggests that attorneys need to take into account lexicon, syntax, semantics, pragmatics, and social context as they pursue their litigation efforts. (Shuy, 1984)

Language as Evidence

Another area of linguistic study concerns the use of language as evidence. Secondary evidence from witnesses becomes less useful as jurors can hear tape recorded, or primary, evidence, which is thought to speak for itself. The applied linguist, however, knows that a tape recorded event is not the real event. Audiotape tells a great deal, but it tells little about how far away from each other the speakers were or, in fact, who was actually talking with whom. Although, videotapes may give better evidence of [speakers] and distances, they may also provide misleading appearances.

For example, the many Abscam conversations videotaped in the rooms of the Marriott Hotel in Arlington, Virginia were in black and white, which made the expensive rooms look "grimy, run-down, and dark," supporting the appearance of sleaziness that the FBI hoped to get. (Shuy, 1984.)

Linguists assist attorneys in preparing their cases for trial, and, in some cases, appear as expert witnesses in criminal and civil court cases. For example, a man accused of making a bomb-threat telephone call to an international airlines was acquitted. The linguist had compared the speech on the tape recorded telephone call with that of the defendant and showed it to be a quite different dialect.

With the advent of tape recorded evidence, linguists play an important role in assisting the jury in their understanding of the case. Linguists can provide the jury with a structure to keep the sequence of the taped message straight; to separate "who said what to whom"; to discern speakers' intentions from available clues in the tapes; and to point out the conversational strategies of the speakers. For instance, government "agents have secured what appears to be consent or agreement of the targets of the investigation, but closer analysis
reveals that all they had was an 'uh-huh' or an 'okay' feedback marker that signals no more meaning than 'I hear you, keep talking' or 'I understand what you're saying,' or even 'I don't necessarily understand what you're saying, but I'll hear you out anyway.'" As Shuy explains, "humans tend to edit speech; make it fit their view of the world; make sense out of it from where they are" (Shuy, 1984.).

Language and Education

As a composition teacher for nine years at both the secondary and college levels, Roger Shuy realized that it was easier to edit student papers with such remarks as "monot." or "awk." than to explain to the students why their papers read that way. He points out our educational preoccupation is with language forms (phonology, morphology, vocabulary, syntax) rather than with language functions (using language effectively in life functions such as requesting, denying, asserting). "What we have learned in the past few years is that how people use language to get things done is a higher order skill or competence than is their simple mastery of grammatical forms."

However, as Shuy explains, our tradition of teaching reading, writing, and foreign languages has developed not holistically (which takes into account both linguistic environment and social context) but in the opposite direction, from surface to deep, from form to function, from part to whole. Recent studies on teaching English as a second language (ESL) to adult foreign students demonstrates how learning is improved when form follows function. The experiment consisted of a control class using traditional form-oriented teaching and an experimental class using the functional approach, where students were involved in typical life situations. At the end of the year, the latter group was considerably ahead of the control group "not only on how to use the language to get things done (such as to complain, to request, to deny, to clarify), but also in sheer fluency and, most surprisingly of all, on skill in English forms (past tense, etc.) even though such forms were not directly instructed." (Shuy, 1980.)

Holistic language training also considers social contexts. "Language learning should be seen in relationship to the people with whom the learner will eventually communicate." For instance, the British Council's English for Special Purposes teaches adults by setting the learning in the work context. "Turkish mechanics are taught English through a curriculum which has as its content the topic of mechanics. Such an approach contextualizes the learning into the learner's world and frame of reference" (Shuy, 1980).

Dialogue Journals

Large classes and the traditional values of quietness and of turn taking thwart oral language ability. Classroom talk usually consists of question-answer sequences. Dialogue, on the other hand, is a natural learning device for language acquisition, which begins with the dialogue between parents and child. Efforts are being made to bring dialogue back into the classroom by way of dialogue journals between teacher and student. Dialogue journals "bring back a semblance of the social interaction that natural oral conversation brings," because they are conversational in style and allow teacher and student to discuss important topics. With dialogue journals, the student generates the topics for discussion, unlike in the classroom setting. (Shuy, 1987.)

Results of oral language research in elementary classrooms has shown that teachers talk about 95% of the time; this talk is divided about equally between asking questions, giving directives, and evaluating. In dialogue journal writing, however, Shuy found that these forms of teacher communica-
tion were cut almost in half. "The big difference, though, was in the type of questions asked. In the classroom, teachers ask test-type questions—one to which the teacher already knows the answer. In their journals, teachers' questions were new, information-type questions, genuine requests for knowledge of something that only the students had."

The following is an example from the dialogue journal of a second grader having difficulty learning to read and to write in the classroom but eager to write to her teacher and to receive her responses:

Kelly: I have problems some times well I have this problem it is I am not very god on my writeing

Teacher: I think you are a good writer. Keep on trying your best. I like the Little Red Hen, too, Kelly. Keep on writing!

Kelly: Oh kay. Do you have a problem. if you do I will help you and what are going to be for Halloween.

Teacher: I am going to be a farmer. ...Everybody has problems, Kelly. Some problems are big and some are small. One of my small problems is I can't stop eating chocolate when I see it!

Language functions of predicting, evaluating, and complaining, which take more thinking and reasoning skills, increased from 3% in classroom talk to 23% in journal writing. In journal writing, students also increased by 50% the number of information questions they asked of the teacher. (The newsletter Dialogue is available by writing to Dialogue, CAL, 1118 22nd St., N.W., Washington, DC 20037. Published three times a year for $6.00. The April 1988 issue focuses on "Dialogue Journals in an International Setting" (Japan, Germany, South Africa, Zaire, and Mexico).]

Effective Complaints

Another important aspect of dialogue journal writing is the opportunity for the student to complain (Shuy, 1988), an important language function. Student complaining can be instructive for the teacher, providing important information about how students perceive what is going on, which in turn enables the teacher to determine what to reinforce, repeat, stop, supplement or avoid. More importantly, says Shuy, complaining is a thinking process.

Complaints can be true or false. But to be felicitous (or effective), they must be uttered sincerely, or rather the speaker must believe that the complaint is true. According to Shuy, "it would seem logical that complaining is human kind's very first function, manifested by crying at birth." Children acquire this function long before school age and learn to differentiate complaints to peers from those to adults. Children learn that "adults do not like to hear complaints at all...and will frequently tell them 'stop complaining.' A child might wonder if it could possibly be true that, in the adult world, no complaining takes place."

In the school setting language functions such as complaining, interrupting, and denying are often abolished from speech and writing. However, as Shuy states, "...it is unrealistic to believe that life will treat us in a nonprejudicial way to the extent that no complaining will be necessary."

In examining six, 6th grade student journals consisting of student-teacher exchanges for one school year, Shuy tallied 365 student complaints that

(continued on p.14)
covered three basic areas, academic concerns (134), student and teacher relationship (198), and personal matters (33). Of the 365 complaints given, 167 were structurally felicitous ("with stated conflict, an account given and new information provided") and were convincing. The most felicitous complaints were those relating to student-teacher relations and personal matters. Although the students were at different stages of developing communicative competence in complaining, over the year they all improved in their ability to produce a felicitous complaint, most even reducing the number of complaints.

Willy is an example of an effective complainer, one who mitigates his directness with positive evaluation. He has learned effectively the social skills of language, using the following strategies: direct discontent, mitigation, indirect discontent, and positive evaluation. An excerpt from his journal reveals some of these characteristics.

Feb. 29: I hope we don't keep studying about India to the end of the semester because truthfully I'm getting tired of studying about India every morning. I like studying about it and all but I think we are spending too much time on India and it's getting kind of boring although I like making maps.

Other Studies

Sex differences in classroom response are just beginning to be the subject of analysis. As part of a linguistic study of a high school class, led by Secretary Bennett (U.S. Department of Education), Shuy looked at male-female responses. In short, male students responded more frequently than female students to the teacher's (Bennett's) questions and males in answering the teacher's questions were interrupted less (19%) by the teacher than were the females (27%) (Shuy, 1986.)

Also noted were Bennett's evaluations to the student responses. He gave four types of evaluative responses to their answers: negative, challenge, neutral, and positive. Of particular interest were his neutral and challenge evaluations:

...neutral evaluations neither praised nor condemned. They usually took the form of "Okay" or "Alright", spoken with flat intonation. ...Challenge evaluations usually repeated the words of the student in a question intonation indicating that part of the answer was right but not all of it, or he asked the student to say the answer in another way." The fact is that he offered challenges only to male students and neutral evaluations only to females. (Shuy, 1986.)

Although aware that this is a limited study, Shuy, however, asks if teachers do tend to challenge males more than females and if male teachers challenge males, while female teachers challenge females. These are questions that teachers as well as linguists ought to begin to consider.

Conclusion

As Shuy succinctly points out,

What is glaringly omitted in all three professions [medicine, law, and education] is the use of functional, interactive, self-generated language performance data as the major source of diagnosis and evaluation for medical service, legal evidence, and learning/teaching. ...A major focus and goal of linguists is directed to these omissions.
Some common research methods unifying the recent work of linguists in these areas are: 1) reliance on direct observation of the communicative event, 2) analysis of the interactions themselves, 3) discovery of the structure of the communicative events to obtain a holistic, contextualized perspective, 4) inclusion of the perspective of the patient, defendant, plaintiff, and learner as well, 5) use of technology (audio and video taping for example) to capture and freeze the event, 6) construction of meaning, referential and inferential, by the interaction of conversing participants, and so forth. (Shuy, 1984.) If lawyers, doctors, and teachers use these linguistic studies, they can better serve their clients.

References cited: (All articles by Roger Shuy, Professor of Linguistics, Georgetown University)


"Dialogue as the Heart of Learning." Language Arts 64 (December 1987).


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