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DISCOVERING CONNECTIONS

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I. GOALS AND ORIENTATION

This paper attempts to answer some basic questions of cross cultural communication, in particular, the role of prosody in signalling and interpreting thematic continuity in discourse. Conversations in Indian English (IE) and British (BE) collected in interethnic contact situations constitute the primary data. The theoretical framework of conversational analysis is that proposed by John Gumperz.² This framework integrates linguistic and sociological approaches to conversation, focussing on conversational inference and on the participant's use of perception and interpretive processes learned through previous communicative experience to negotiate frames of interpretation (i.e., co-occurrence expectations). Using this perspective, it is possible to account for both shared grammatical style and knowledge that characterize our modern culturally diverse societies.

II. BACKGROUND

Immigration from South Asia to England increased in the 1950s and reached its peak during the 1960s. Gradually, South Asian immigrants have established themselves in a number of industrial suburbs throughout South England and the Midlands. In day-to-day work situations, these immigrants have had to deal with a number of official workers, most of whom are British. Since 'communication is power' in modern post-industrial society, it is very important that these immigrants communicate effectively when dealing with members of the bureaucratic world. An Indian must not only be skillfull as a craftsman, technician or office worker, but must also be able to demonstrate his abilities to the members of the dominant group who judge him by their own system of values and communicative strategies.

Contrary to traditional acculturation theory, evidence shows that as settlement is progressing, interethnic relations are deteriorating and communication difficulties are growing rather than diminishing. These problems become crucial in key situations like job interviews, committee meetings, industrial disputes, etc., in which members of the minority group regularly find themselves being misunderstood. They see their intentions misread, find it difficult to predict the reactions of others and feel an increased sense of powerlessness in managing their own lives. In particular, they see a discrepancy between what they know is their own considerable technical skill and the judgments others make of their work. Seeing no explanation of this discrepancy, they believe they are victims of racial discrimination. Members of the majority group, on the other hand, have come to form fairly rigid stereotypes of Indian workers.

Since Indians and Pakistanis are not native speakers of Eng-

lish, one might assume that their communication problems are simply due to their lack of knowledge of the language, but the problem is more complex. To begin with, English has long been an official medium in India and Pakistan and is spoken by a fair number of the educated population. With time, IE has achieved a status of its own among the several other languages of India. Many of the South Asian immigrants have therefore learned English in schools in India.

After living in Britain for two decades the vast majority of the immigrants, with the exception of those who spend their entire time within local neighborhoods, have at least a functional control of English. Moreover, language instruction is available either through local community centers or through the state educa-Studies have shown that difficulties in communication do not necessarily disappear as the workers gain control of basic English grammar and vocabulary (see Gumperz et al., 1979). In many cases, language teachers are quite satisfied with a worker's progress in the classroom; yet in the industrial situation, foremen and supervisors find little improvement in their language performance. The question is not simply one of foreign accent: we have found that Greek and Cypriot immigrants often have accents which, if measured in purely linguistic terms, are even more deviant than those of Indians and Pakistanis, yet they have less difficulty than Indians in communicating with English people. III. PROBLEM

When we study the Indian speaker's English, we find that IE diverges from the standard British English³ in ways which, when examined at the sentence level, make it occasionally odd but rarely incomprehensible. These oddities can present severe problems in signalling connections between utterances.4 Indian speakers of English systematically differ from native speakers of English not only in the accent and stress pattern, but more importantly, in the devices they use to signal 'communicative intent'. 5 They differ in ways of chunking and lexicalizing kinds of information and meanings and in the mode of establishing interrelationship between syntax and semantics and prosody. What appears to be 'stylistic variation' is in essence a difference in the way an Indian speaker uses the language, i.e., in fulfilling tasks like differentiating main and subsidiary information, tying different arguments together, ways of structuring and connecting sentences, signalling turn-taking during a conversation, signalling change in the focus of the argument and in the nature of the ongoing speech activity, These are some of the tasks that a speaker has to accomplish in order to be comprehensible. Recent sociolinguistic studies (e.g., Hymes, 1974) have shown that a command of the language in terms of structure and grammar, even though basic to language, is not a sufficient condition for communication. The studies show that communication is a two-party transaction in which both parties have to negotiate at every step in order to reach a mutually agreeable interpretative meaning of the different speech utterances and of the discourse at large. A considerable amount of

research has been and is being done on the sociological aspect of this issue. Little has been done however to show exactly how speakers communicate intended social meanings through the use of linguistic and paralinguistic features.6

Various aspects of prosody and paralinguistics have been investigated by acoustic phoneticians as well as by linguists (e.g., Bolinger, 1972; Crystal, 1976; Halliday, 1967; and Trim, 1976). Their work has concentrated almost exclusively on isolated sentences. Work on intonation proper has concentrated mainly on the internal intonational structure of the clauses. Very little effort has been done to show how both intonation and prosody in the wider sense (e.g., register shifts, rhythm) serve as cohesive ties and thereby contribute to the interpretation of communicative intent. However, I shall attempt to interpret these findings in relation to communicative intent and social meaning, i.e., I shall show how prosody and paralinguistic cues function in signalling interpretive meaning.

IV. DATA BASE

To do the above, I have analyzed an interaction between an Indian school teacher (I) and a British staff member (B) in a teaching center. The school teacher has an M.A. in Mathematics from an English college in England. He has held several probationary posts but has always been released before achieving tenure. Although the principal assured him that he was doing fine, the Indian teacher subsequently found out that he was to be fired, and would be required to take a language training course before obtaining another position. At this point he went to see a staff member in the teaching center. A critical part of the interaction between the Indian teacher and the British staff member is presented below.

```
Interaction 7

1. I: In the third school/ in which I had been transferred //
2. B: yes //
3. I: I had been / ... I contacted / during the half / ... and
during the / during the term //
4. B: Yes //
5. I: when / I had completed the ... training / ten day training
6. B: at the language school //
7. I: at the 'school / and you know that ... what happened there..
8. B:
9. I: and there was another / week / for the / vacation //
10. B: Yes //
11. I: and during that vacation I contacted the union / and union
person contacted
12. B:

Ver //
12. B: You contacted /
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I: the his / representative / at the school and / that repre-
       sentative / contacted the headmaster / and headmaster / had
       contacted the authority //\Gamma_{\rm But}^{13c} before that instance / \Gamma_{\rm in}
      the morning / first day / of the term / I had met him / and told him that / I am worried
14. B: yes //
15. I: and / I don't know where I stand / ...
16. B: hu //
17. I: He told that / its alright / you are okay / I'm happy /
      you're happy /
18. B: th...th..the headmaster said this //
                    h...headmaster yes //
20. B: before he contacted the authority //
21. I: before he contacted the authority / and before he learned /
      that I have seen / another union person //
22. B: From / you mean from a different Tunion //
                                          different union person //
23. I:
24. B: which union was it //
25. I: it was uhm...it was not NAS / it was uhm ...
26. B: NUT //
27. I: NUT //
28. B: NUT // and you were a member / of .. of the NAS / yes /
                                          no I I was NAS member / uhm
29. I:
                                                        so uh..uh..
30. B: so you contacted the NUT //
31. I: and so / ... Turing this time /
32. B: yes //
33. I: because the / headmaster didn't know / that I have seen the
       other union /
34. B: hm
35. I: and uhm / he didn't had cont /\Gamma. he hadn't contacted the /
       education office / so he had the impression that / every-
       thing is okay //
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36. B: Before he contacted the office //
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- 37. I: yes // when / the union person / told him that / he has /
- 38. B: yes //
- 39. I: and he has / asked / for his help and /
- 40. B: yes
- 41. I: I want to see what is / so he contacted the advisor / told the the advisor / that ... this is the situation he has contacted ->
- 42. B: yes
- 43b. I: another union member / so he was annoyed //
- 44. B: who //
- 45. I: Ladvisor math math advisor //
- 46. B: the math advisor / yes /

V. ANALYSIS

If we examine I's English, his sentences are grammatical, yet, they are not normal English sentences. We can clearly see I is trying to relate a series of events, but we cannot exactly follow the lead. The sentences are connected in such a way that we are not surprised when the female staff member is confused and asks in the end "who?". This may be because relatively few tying-in phrases are used to link any two arguments and secondly, the links that are lexicalized do not seem to meet British listener's expectations. Our previous work with IE shows that Indians have different ways to mark these discourse functions, such as use of prosody. If we examine characteristic prosodic features used by I in this passage to signal thematic continuity, the obvious question to ask is "what kind of prosodic cues is I using to tie his arguments?" I assume, like all other conversational analysts, that what I is saying makes sense and is important for analysis. Since there are no impartial criteria to accept or reject his account as incoherent, we begin by accepting it as having some kind of semantic relevance which seems to bypass the British speaker's understand-

I have analyzed the conversation from the view point of I and B, on the basis of (a) some of the possible explanations of each of the utterances, (b) any supporting evidence that we may get from the conversation itself, (c) personal interviews with the participants and (d) research with other speakers of the same background, thus reaching the most likely explanation of each of the utterances. Thus we are not only able to get to the intended meaning at each step in the conversation, but are also able to delineate when and why the intended meaning was misunderstood and resulted in miscommunication. (See Table 1.)

In Table 1 we will deal with Ss 1-21 to illustrate the different interpretations that can arise during conversation:

ent	1111	erpretations that				
	Comments	I is stressing the auxiliary "had." By overstressing the passive form and de-accenting the agent, I is showing his helplessness in the action thus taken.	Pause after "when" in 5 indicates to BE speaker that the sentence following it is somehow related to the previous sentence.	Ambiguity not clarified by syntactic markers.	Extra stress on 'met."	I is using high pitch vs. normal pitch to distinguish between a quotation and a statement resp. I constantly has high pitch on 13c and flat tone on "worried." Flat nucleus sounds odd to BE speaker. Similarly in 17, I is quoting
TABLE 1 Alternative Views of the Conversation	I's View	'In the third school, against my wishes, I had been transferred.'	3 is complete by itself. 5 refers to a new event.	'union person contacted the representative who was a representative at the school.'	I took initiative and went to see him personally.	I is quoting.
Alternativ	B's View	"In the third school/in which I had been transferred/" Ambiguous. Two possible explanations: 1) in the third school, in spite of what you may have thought, I had really been transferred and ii) Same as I's.	"I had been/I contacted/during the half/and during the/during the term//"5 seems to qualify 3 contributing to the act "contacted" in 3.	"at the school" = 'union person contacted his representative (not when he was at home or anywhere else, but) at the school."	"I had met him" Peculiar stress	"I am worried" Peculiar intonation.
	#S	1.	3-5	11- 11b	13c	

Table 1 continued

Comments	4 short sentences, all on low pitch as against the pitch and high head in the previous segment of the contractions.	In IE, one way of contrasting information is not by contrasting information is not by contrasting but by contrasting a whole phrase as one unit with another phrase as another unit through the use of prosodic features like high pitch and stress. In such cases we find that the stress begins from the linguistic unit just before the main content words. E.g., in 21, from "seen" to the next phrase, thus segmenting the phrase "another union person" after "union" i.e., (another union) (person) as opposed to (another) (union person). This also explains the high stress on "at" in "at the school" in 11b. The semantic emphasis is on "school" but prosodically the stress begins from the beginning of "at the school."
I's View		'person from a different union'.
B's View		"another union person" = Ambiguous. Two possible readings: i) 'person from different union'; ii) 'another union person from the same union'.
#S	13c cont.	21

Sentences 21-46 cause special problems in understanding for a BE speaker, mainly because: (a) a number of "he"s are being used with no specific clarification of their referents; (b) the relationship between sentences and parts of sentences is not clear.

Just what do all the "he"s refer to? As we can see from the passage, before I and B are half-way through I's story, I has already used several "he"s referring to different people. As the talk progresses, I gradually comes to the crucial point referring to all the events, which have mainly consisted of several two-party conversations taking place at different times. I refers back to most of the people involved in these events by using the same pronouns "he", so much so that at the climax of the interaction B is forced to ask "who?" (S-45). The problem lies in the fact that these anaphoric pronouns are frequently ambiguous and the ambiguity is not cleared up by the syntax.

What and where are the connections? The passage also seems incoherent to a speaker of BE because he has problems connecting the arguments and is unable to figure out what the central issue is. The British speaker looks for syntactic cues in the passage to determine the relationship between two parts of the message, but they are absent in this conversation. With analysis we find that semantic functions referring back to given information, links of effects, subgrouping one or more facts as part of a major argument, etc., are instead indicated through intonation and prosody. In the absence of syntactic markers to indicate semantic relationships between arguments how does I (1) signal old and new information, (2) arrange events in a temporal sequence, (3) indicate distinctions between personal opinion and a general fact, and (4) signal a change in the focus of the argument?

We can begin to answer some of these questions by looking first at how I relates different arguments. The first step includes dividing the entire conversation into several blocks such that each block consists of one major new piece of information. For instance, sentences 1 and 3 pertain to one major piece of information, namely 'in the third school in which I had been transferred, I contacted (somebody)'. Therefore, 1 and 3 can be grouped into one block. Further, Ss 5 and 7 jointly furnish another major piece of information, namely 'I had completed the ten day training at the school'. Since the information given in Ss 5 and 7 is crucial to I's narrative and is different from the information given in 1 and 3, and is one separate piece of information, 5 and 7 can therefore be grouped into another block. 8 In this manner, the entire passage is divided into ten blocks (see Table 2).

TABLE 2: Blocks of Information

Block A	$\frac{S\#}{1,3}$	Sentences In the third school in which I had been transferred, during the term I contacted ().
В	5,7	I had completed the ten day training.
С	9,11	There was another week for the vacation and during that vacation, I contacted the union.
D	11b	And union person contacted his representative at the school.
E	13	That representative contacted the headmaster.
F	13c,15 17	But before that instance, in the morning, first day of the term, I had met him and told him that "I don't know where I stand." He said that "it's all right. You're okay. I'm happy. You're happy."
G	21,23 25,27 29,31 33,35	Before he contacted the authority and before he learned that I have seen another union person. (During this time because the headmaster didn't know that I have seen the other union and he hadn't contacted the education office, so he had the impression that everything was okay.)
Н	37,39	When the headmaster told him that he has contacted our union representative and he has asked for his help,
I	(13b) 41,43	(headmaster contacted the authority) he contacted the advisor. Told the advisor that this is the situation. He has contacted another union member.
J	43b	So he was annoyed.

Now that the different pieces of information supplied by I are clearly recognizable, the next question can be posed, namely, how are these different blocks arranged by I to make one cohesive piece of argument? As mentioned earlier, the account relates several incidents that took place at different points in time. The problem is not in understanding the literal meaning of the individual sentences, but in comprehending the right temporal sequence. The listener is unable to link these different pieces of information supplied by these sentences either logically on the basis of literal meaning they imply or sequentially on a real time scale. Thus we ask ourselves, why is it that the account makes sense to I but seems to be so confusing to B?

Looking at the account for the chronological order of information and from the point of view of the story schema, we find that I switches to and fro in time frame very frequently. He presents, in the same time frame, events that really happened much

earlier and much later, thus creating an unclear picture of the actual sequence. If we represent the time scale of events on the horizontal dimension and the major steps in the development of the story on the vertical scale, we can summarize the basic discourse structure of I's account of the events in the form of a diagram. (See Figure 1.)

VI. OBSERVATIONS

Below is an account of the observations we can make about the story based on (a) a knowledge of IE, (b) participants' comments.

1. Going back and forth: If we mark the direction of the arrows joining two blocks, we find that I not only goes backward in time, but also constantly refers to events that took place much later in the real time sequence, shifting from one event to the other. For instance, he goes from block A to B, which in a real time scale is going backward in time and then from B to C, thus returning to the original point of time, then moving on further ahead in time, to D to E, then to I and then suddenly going back in time to F and G

and so on and so forth.

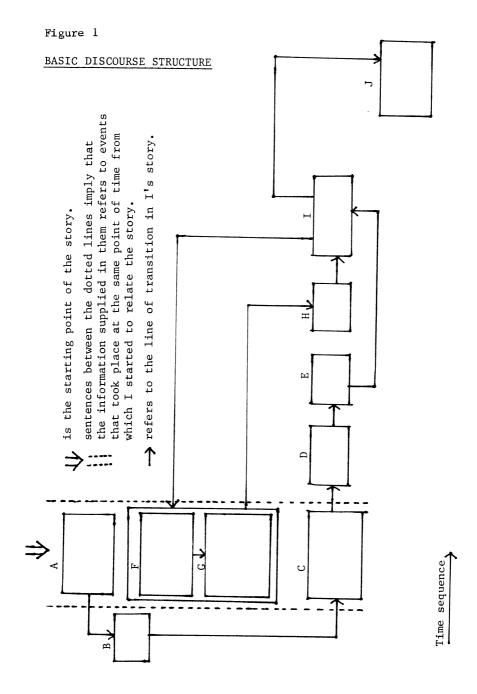
2. <u>Mentioning events in disjoined order</u>: The events mentioned in A,C,F,G all occur at the same point of time but they are arranged out of sequence as is evident from their alphabetical order. In other words, instead of giving one complete picture of the events at one time, I relates parts of them at several different occasions.

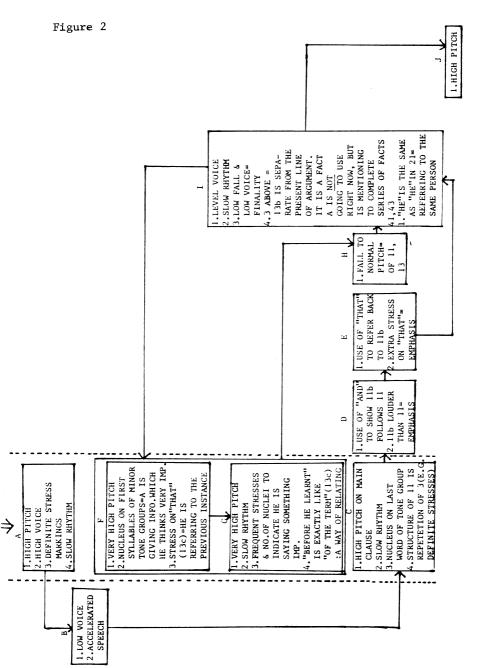
It is not uncommon to refer back and forth to several events when telling a story (say, the plot of a movie), but in that circumstance the speaker must clearly spell out the shifts so that the hearer can easily follow the connections and can relate the different events together.

It is important to ask the question — "Does I relate these different blocks together and if he does, how does he connect and differentiate them?" As indicated earlier, in IE discourse, we find a surprising lack of syntactic constructions to indicate relationships between successive sentences. Hence a valid question to ask is — "If the relationships between sentences are not lexicalized, then how exactly are the relationships indicated?"

On carefully scanning through each of the sentences of the passage spoken by I, we are surprised to find that as the story progresses I is using some very definite and regular prosodic cues, not only to mark these different blocks but also to indicate the relationships between them whenever an explicit mention of the connection would be necessary. Prosodic markings of a definite nature are also used to indicate the 'sudden shifts' in the line of argument, or of perspective, which occur when there is a change in the focus of the discourse. In these instances, prosody serves as a marker for these shifts and thus serves as a signalling mechanism for the building and the maintenance of the discourse. Figure 2 displays the specific prosodic characteristics of each of the sentences semantically crucial to the block they are part of.

After specifying prosodic markings for all of the crucial sentences, some very interesting observations can be made:





Time sequence

- 1. Sentences that are grouped together in the same block on the basis of commonality of one major argument share the same prosodic characteristics. For instance, in block B, Ss 5 and 7 are both in low voice and in accelerated speech. Similarly in block F, Ss 13c and 15 together make one complete statement of fact. They both also share prosodic markings, viz. they are spoken on very high pitch, and the first set of syllables of minor tone groups are set off from the following ones.
- 2. Shifts in the focus are marked prosodically. Given that each of the blocks constitute one complete statement of fact or one argument, the blocks that appear next to each other which do not follow each other logically, are marked prosodically to indicate the shifts in the focus of the argument. The blocks are set off from the previous block either through a different intonational pattern or through a different rhythmic pattern. For instance, block A is differentiated from B by a change in the voice level and in the speech rhythm.

 COROLLARY:

Blocks that do follow sequentially on the time scale do not receive any characteristic prosodic markings. We can see that block E directly follows after D in the sense that they are connected by an arrow with no intervening block. We see that the two blocks are not marked prosodically in any significant way either. The stress is on the main content word, namely, "that" of 13, a way of indicating that I is referring back to the "representative" mentioned just before 13.

3. Repetition of prosodic pattern: a way of relating information. The prosodic structure of 3 (high pitch on main clause, slow rhythm, definite stress markings) is repeated in 11, and of 13c (high pitch and staccato) is repeated in 21. Figure 2 shows that blocks consisting of these sentences have the same time reference (between the dotted lines). It is interesting to note that the main clauses of the sentences of all these blocks receive high pitch. It appears that the use of high pitch is a way of suggesting transitions in the development of the story which refer to events that occur at the same point in time. Hence, it appears that repetition of the prosodic characteristics relates two or more sentences which occur at different points in the discourse but which refer to events occurring at the same point in time.

A shift in the prosodic pattern indicates the speaker's intention to convey that the current information is not immediately related to the previous information. (Note: this is similar to the observation indicated in 2).

At times I uses an utterance consisting of several pieces of information, with several minor tone group boundaries and with only one major tone group boundary at the end. In such cases, a British speaker is likely to interpret these several pieces of information as part of <u>one</u> whole argument; or at least, may see them as being closely related semantically and temporally, lacking any syntactic information to the contrary. For example, the utterance

represented by 13 and 13b has 3 minor tone groups, with a major tone group boundary after the word "authority." Ss 13 and 13b, although falling within the same major tone group, refer to two separate incidents that occurred at two different times. 13 starts with high pitch register on "that" and also receives extra stress and high tone on the last word; 13b, on the other hand, starts with a <u>flat</u> nucleus and has no heads at all. By treating these segments differently on the prosodic level, I indicates the difference in the time of the occurrence of two events. Similarly, there is a shift in the pitch register of 13b and 13c and we see from Figures 1 and 2 that the two incidents occurred at two different times.

To summarize, after we consider the prosodic features that I uses to mark semantic functions of discourse, we see that I not only distinguishes between two semantically different arguments but also uses definite prosodic cues to tie in several different messages in whole or in part. Without specifying the main point, he gets into several minor details (a typical characteristic of Asian discourse, not explained in this paper), so that by the time he comes to the main point, the staff member is thoroughly confused. Moreover, his ways of indicating main and subsidiary information are so different from a Britisher's linguistic system that they are constantly ignored.

VII. A REAL-TIME REARRANGEMENT

Having resolved the basic question regarding I's method of signalling communication intent, we are tempted to ask another question: Would I have made himself clear to a BE speaker if he had followed his line of narration according to the real time sequence, as depicted in Figure 1?

Now, if we were to substitute the blocks by the topic sentences of each of the blocks, keeping the temporal sequence of the blocks as is (i.e., $B\to A\to F\to G\to C\to E\to H\to I\to J$), we get the following passage:

<u>s#</u>	Verbatim	After minor modification
5	when I had completed the training / ten day training at the language school	when I had completed the ten day training
1	in the third school in which I had been transferred	I had been transferred to the third school
13c	I had met him	at the language school, I met the headmaster
11	during that vacation, I contacted the union	later, during a vacation, I contacted the union
11b	and union person contacted his representative at the school	and the union person contacted his representative at the school
13 10	that representative contacted	that representative con-

<u>S#</u>	Verbatim	After minor modification
	the headmaster	tacted the headmaster
37	when the union person told him that he has contacted our union representative	when the headmaster came to know that I had contact- ed the union
41	so he contacted the advisor, told the advisorhe has con- tacted another union member	the headmaster told the advisor that I contacted the union
43	so he was annoyed	so the advisor was annoyed

If we read through the column with the modified passage, we get a cohesive narrative and the account makes sense. The chain of events seems to follow in a logical order; the cause and effect relationships are explicit, and the hearer gets a complete picture of the line of argument as presented by I. (Note that I have not made changes in the grammatical structure of I's constructions.)

This points **out** that in spite of the fact that I gave all the relevant information, B could not process it because of the way I framed and marked it. The problems in this conversation are typical of problems Indian speakers have in communicating with British speakers. Thus minority speakers tend to feel that their opinions and views are not taken seriously and see themselves as being subjects of racial discrimination. The Britishers, on the other hand, think of minorities as inefficient workers who make excuses and speak incorrect English. The problem lies not in the knowledge of grammar, of syntactic constructions or of accent for that matter, but in the way they use linguistic and paralinguistic cues to signal syntactic and semantic functions of day to day discourse.

To summarize, we can say that speakers of different linguistic and ethnic background may use different linguistic processes to convey similar conversational intent. They may draw upon a different set of conventions to process ongoing conversations. The preceding analysis shows that the nature of prosodic process has a great deal to do with the kinds of inferences we draw in conversations.

This analysis has implications for studying the role of sociocultural knowledge in interpreting linguistic forms in conversations; for studying the process by which we form conventions and expectations about conversations and are able to negotiate interactional meanings with co-interactants; and for examining the manner in which methods of interpreting communicative intent become part of our linguistic behavior. Detailed research is needed in the area of interaction among diverse people in different social settings. Findings of such research should have important bearings on these issues.

FOOTNOTES

- 1. The work reported here is part of an ongoing project supported by NIMH 26831. The conversation analyzed in this paper is part of the data collected in Britain by Dr. John J. Gumperz, the principal investigator of the project. I am grateful to Celia Roberts and Marilyn Silva for some very useful comments.
- 2. See John J. Gumperz: Sociocultural Knowledge in Conversational Inference, 1977. Also, et al., <u>Interethnic Communication</u> (Volume, Cambridge University Press, forthcoming).
- 3. These differences may also be applicable to American English.
- 4. There is not much research literature available on IE. Whatever there is is limited to the study of accent (e.g., Susan Taylor, 1967); stylistics (e.g., Braj B. Kachru, 1970); or lexical peculiarities of IE. To my knowledge, there is no study on IE in interactive situations.
- 5. The term used by Gumperz (1979) to "designate ... implicitly shared perception, which is a prerequisite for the maintenance of conversational continuity."
- 6. For a more extensive discussion of this issue, see Mishra (1980).
- 7. Prosodic and paralinguistic cues are transcribed using a simplified form of a system developed by Dr. Gumperz and his collaborators on the project. In this system, speech sequences are first divided into tone groups or intonational phrases. A phrase can be marked by a minor, non-final boundary "/" or a major or final boundary "/". Within a tone group we indicate: l. location of the nuclei (i.e., the syllable or syllables marked by change in pitch " "low fall, " "high fall, " "low rise, " "high rise; 2. other accented syllables in the tone group, " "high head, " | "low head; 3. paralinguistic features such as (a) shift to high register " | " or shift to low pitch register " | ": both apply to the entire tone group and (b) rhythm and speed of speech: "acc" refers to an accelerated speech, "ret" a slow speech, and "stac" refers to staccato. These features also apply to the entire tone group. Doubling of one of the above feature-signs means extra stress.

When working with IE data, it is difficult to mark nuclei. This is so because there are no sharp intonational contours on single words. Instead the semantic function of a nucleus is fulfilled by the shifts in pitch register over groups of words or clauses. Running IE data through pitch extractor attests these observations. See Gumperz et al., Interethnic Communication (forthcoming).

8. I would like to note that three of the blocks (e.g., F, G & H) do, however, contain more than one piece of information. These blocks could have been broken into several separate blocks, but since the several different sets of information provided by the sentences included in these different blocks are not problematic to the BE speaker (either because they consist of direct questions and answers, or because they relate events sequentially with overt

- syntactic markers), all these sentences are considered as single blocks for reasons of simplicity and brevity (e.g., block G).

 9. Although I have attempted to present the original text, I have had to make a few additions to clarify it. For example, blocks
- 10. Information in block ${\tt G}$ seems redundant to the argument; hence the block is omitted.

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