

# Remarks on Theoretical Analysis of Discourse Intonation in Spoken English

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## O. Preface

Apart from the previous studies of English intonation, such as prosodic approaches, phonemic approaches, and accentual approaches, Brazil (1985) propounds his remarks as a hypothesis that the intonation is a feature of spoken discourse which can be manipulated depending upon the context of interaction between a speaker and a hearer. It is this fact which suggests a notion of existential paradigm as a dynamic, moment by moment changing thing. Thus there is no way in which you could say that a word would ever be necessarily prominent, because a place of prominence depends entirely upon here and now situation. See the following example:

// the QUEEN of HEARTS //------(1)

According to Brazil (1985), a speaker has a decision to make the existential paradigm prominent or not. As is clear in the example (1), this distribution of prominence is observed in the response to: "Which card did you play?" This means that the set of things available for being focused is variant from one occasion to another, depending upon how you would interpret the context.

// the QUEEN of hearts //------(2)

In the example (2), QUEEN is the choice from thirteen possibilities. You must therefore pay your attention to your speaker's presupposition. Before the response (2), the speaker would have said that "Which hearts did you play?" Likewise the prominence can possibly be placed as follows:

// the queen of HEARTS //------(3)

In the example (3), hearts is regarded as new information, which means that this element is not involved in the common understanding of the speaker and the hearer. Accordingly, in the business of oral communication, poor listeners have a tendency of not being able to distinguish selective elements from those of existential paradigm, while good listeners are competent to do so.

In addition to the introduction of the notion of prominence, the function of other aspects of discourse intonation shall be explicated in this paper. For this purpose this paper

touches upon tone and key, which reflect central features of the meaning system, and termination, both of which build up the system of pitch sequence. If space is available, the teaching of English pronunciation shall be discussed in relation to tonic segments.

## I . Theoretical analysis of discourse intonation

### A. Prominence—selective vs. non-selective

If a syllable has a prominence, we regard it as having been presented as selective on the basis of understanding between a hearer and a speaker. If it is non-selective on the other hand, it is assumed that the syllable is non-prominent. Thus, in most cases, when the state of affairs is predictable, a word describing the state is non-selective, whereas if a state of affairs is not predictable, a word referring to the state of affairs is assumed to refer to factors being selective, namely of syllables having been prominent. However, it is by no means that this is always the case. If I say non-selective is equivalent to being predictable, I am misleading you.

One of the difficulties of analysis is that when we speak we create a state of affairs, which a speaker hopes a hearer to go along with. See the following dialog:

A: In the office they told me to go away.

B: Who told you to go away?

A: // an / INsolent / ofFICial / //

In A's utterance, INsolent and ofFICial are prominent and this way of prominence distribution is regarded as normal. However in real situation, A may not utter this way. What he said may have been insolent ofFICial, i.e. not putting 'prominence' on the word of insolent, which means he was an official not any of the other thing he might have been and I take it that you would go along with me about, for present purposes, the fact that he is official means that he is insolent, because insolent is a property that you and I recognize as being inherent in officials. In other words the speaker is always trying to create a situation in which the speaker and the hearer may interact each other on their respective communicative purposes. This interpretation may be linked to the practice of communication by the Gricean cooperative principle.<sup>1</sup>

The first maxim is well counted on in the process of interaction between a speaker and a hearer. And Grice says that conversations go on the basis of an assumed understanding between speakers and hearers, who are expected to help each other.

The notion of selective vs. non-selective holds as true for the case of 'an insolent official' as for the use of articles. See the following example:

A: "What was the last lecture about?"

B: "Brain, needless to say. How the brain works."

In this example, given pragmatic here and now conditions of the business, it does not matter whether the speaker says *a* brain or *the* brain, because this choice is irrelevant to the situation you are talking about. Thus, the underlying point in this dialog is that the decisions

of either 'a' or 'the' are based not only on communicative value per se, but on the background of shared understanding in which you are involved.

## B. Categories of tones

### 1. Referring tones vs. proclaiming tones

In addition to the state of affairs created by the features of selective vs. non-selective, there is another important variable which has an association with intonations in discourse structures.

According to Brazil (1985), he has established four categories of tones, such as 'fall', 'fall-rise', 'rise-fall', and 'rise'<sup>2</sup>.

In order to understand the meaning value of these possibilities, to begin with, 'fall' and 'rise' shall be introduced in the following example:

A: "Can you come to lunch tomorrow?"

B: "No, *I go to the university on Wednesday.*"

The communicative discourse chunks for the above italicized can be transcribed in two ways depending upon the pragmatic factors between the speaker and the hearer.

(1) // r i GO to the uniVERsity // p on WEDnesday //

(2) // p i GO to the uniVERsity // r on WEDnesday //

In the above transcription, p stands for proclaiming tone, whereas r for referring tone. It is generally said that the prominent syllable with p-tone provides the hearer with new information, whereas the prominent syllable with r-tone with shared background. Thus, (1) means that 'Talking of going to the university, I do it on Wednesday', and (2) means that 'If you want to know what I do on Wednesday, I will tell you that I go to the university.' Thus, the fundamental distinction between the referring tone and the proclaiming tone is that in the former the speaker regards the topic as already negotiated between he himself and the interlocutor as a common subject, but in the latter the speaker is presenting something as new information to the hearer. In other words any two people involved in the interaction are simultaneously separate people, individual, being distinct from the other and at the same time capable of sharing the apprehension of the world. Thus, something that comes with the p-tone is said on behalf of the 'I', who is different from you, so that I am fencing myself off.

On the other hand, when it comes to r-tone, it is said that on behalf of 'we' this is something to which I assume we are in the relationship of togetherness.

At this point we must explicate the reason why a speaker assumes the referring tone when he delivers the given information, and why the proclaiming tone in the case of giving new information. In order to clarify this problem, we must return to the fundamental questions created by the correlation between the phonological innate feature of human voices and what it means.

In relation to this problem, it is generally said that when a human being refers to something which is already negotiated with the interlocutor as a common ground, he has a trend to use a rising tone which combines the innate feature with the voices of human be-

ings. On the other hand, when he proclaims something as new information, he is inclined to use a falling tone.<sup>3</sup>

## 2. Dominant vs. non-dominant manifestation

Dominance, a state of affairs which is indicated with a symbol (+), is a general condition of verbal interaction in which there is “a shared understanding of which participant is in control of the development of the discourse at any one time. This proposal may seem surprising if it is considered in relation to the apparent free-for-all of much informal conversation, and we can best clarify what we mean by attending first to those conversational events in which there are well-recognised rules governing the allocation of roles to different parties. Such events include the conventional school lesson and the doctor-patient consultation. In the former case, the right invested in the teacher, by tradition and expedience, to decide who speaks when, and to set limits to what is spoken about, makes it fairly easy to recognize him as occupant of what we shall call the dominant role.<sup>4</sup> And this dominant feature is superimposed both on the referring and proclaiming tones, depending upon the interactions of participants. “Similarly, the doctor, who asks questions on which to base his diagnosis and eventual prescription, usually exerts overt control, discouraging irrelevancies, deciding when one stage in the consultation will end and the next begin, and finally bringing it to an end.”<sup>5</sup>

Let me illustrate the function of the dominant manifestation by the following example:

// r the MAN at the CORner // p is an ENGLISH man //

// r+ the MAN at the CORner // p is an ENGLISH man //

It is conceivable that a teacher may produce either of these two utterances in the course of social studies for example, but it is unlikely that a pupil would produce the second as a response to the question raised by a teacher.

## 3. Orientation

In our dialog it is common to say that “one speaker-option is to orientate towards a hearer, in the sense that tone choices are made in the light of what is assumed about convergence in some context of interaction, while the other is to orientate towards the language of the utterance, without regard to any such assumptions. A set towards the hearer is here referred to as *direct orientation*, a set towards the language as *oblique orientation*.<sup>6</sup>”

In many cases we recognize the oblique orientation if the utterance has a zero tone in it. If it has p-tone in it, we are not absolutely sure whether it is regarded as oblique orientation or direct orientation, because p-tone occurs in both systems.<sup>7</sup> In the oblique orientation you are proclaiming what a language says, and whatever produced by this mode may be thought to be eternally true, such as Japanese, Moslim, Chinese or Methodist sermon. Accordingly it is conceivable to say that o-tone occurs instead of p-tone in oblique discourse when the sense of each item in the utterance is considered as a discontextualized specimen of language, for example, cabin announcement in the air craft, monologs produced by actors, are sometimes regarded as the cases of oblique orientation, and yet the oblique orienta-

tion as such properly fulfils respective function. For instance, in the case of cabin announcement, its oblique mode is assumed that the plane is keeping her flight as it is scheduled and what is more there is nothing to be worried about. When oblique orientation is adopted in the class of foreign language teaching, a teacher always begins his lesson with a conventional form of greeting in the target language. This mode provides the learners with circumstances in which they are going to be involved in learning a foreign language. And it is a matter of common procedure that the oblique mode is usually followed by the direct orientation starting with p-tone.

Another function of oblique orientation is to provide a speaker with a retrospective summary:

“(but when) // r they *ARE* represented // o *WHETHER* it is by *LAW*yers // o *TRADE* union of *FI*Cials // o *CLAIM*ants *UN*ion // o *CIT*izens advice bureau workers and *SO* on // (there isn’t a very great deal of difference)”<sup>8</sup>

What the above statement tells is not a matter of current issue among the participants but something outside the inter-personal frame of reference.

#### 4. Dominant vs. non-dominant participants

Regarding this feature of dominance, one way of telling the difference between dominant and non-dominant participants is to think of the dominant one having a right of intervention in that the dominant one takes a positive initiative in invoking common ground. As mentioned previously, it is possible to identify some situations in which one of the parties is institutionally in charge of the whole events.

In order to elaborate this notion of dominance, the following dialog (A) should be compared with the dialog (B) in which the teacher has used r+ tone:

“(A) p *WELL* // r i’ve *COME* to *SEE* you // p with the *RASH* // r i’ve *GOT* on my *CHIN* // ————— // p and under *NEATH* // r which has de *VEL*oped // o in the *LAST* // p *THREE DAYS* // ————— // r i *FIND* it’s *IR*ritating // —————”<sup>9</sup>

“(B) p *NOW* // p be *FORE* i came to *SCHOOL* // r+ *THIS MOR*Ning // p i *HAD* my *BREAK*fast // r+ i had some *CER*eal // r+ and i had some *TOAST* // r+ and i had an *EGG* // r+ and i had a cup of *TEA* // r+ and i had a *BIS*cuit // p and then i came to *SCHOOL* //”<sup>10</sup>

In the patient’s dialog, he uses non-dominant referring tones for tactical diplomatic reasons at the time of interviewing, because the patient expects that the doctor should go along with his own assessment and what is more whatever his trouble is he wants to regard it as a matter of common realm of understanding. If by any chance the patient uses dominant referring tones, it would be heard as an aggressive opening, which might be inappropriate to the patient’s role.

On the other hand, in the case of dialog (B), “the teacher is reactivating the pupil’s incipient awareness of the variety of things that go to make up the received notion of breakfast.”<sup>11</sup> He also admits the fact that he is not presenting his statement as here and now conversational affairs but trying to assert his dominance.

## C. Tone units

The tone unit is comprised of three segments: the first one is called proclitic segment and the last one enclitic segment, both of which are optional. The tonic segment which consists minimally of a tonic syllable is delimited by the occurrence of prominent syllables. The first prominent syllable in the tonic segment is called the onset. It is said that all the syllables in proclitic and enclitic segments are non-prominent.<sup>12</sup> In order to illustrate the structure of tone unit more explicitly, refer to the following chart:<sup>13</sup>

Proclitic segment	Tonic segment	Enclitic segment
that do a re	I think on the <i>WHOLE</i> THESE of <i>FIC</i> MARKably good <i>JOB</i>	ials

Neither proclitic nor enclitic segments contain prominent syllables and what is more neither is involved in the selectional potentiality of the tone unit. Therefore, in the real act of listening, these segments of tone units are not well perceived because of the phonological reason. From the viewpoint of sense selection, on the other hand, tonic syllable in the tonic segment is prominent and it provides us with the heaviest information in the discourse. Accordingly if a listener may miss the meaning of a word on which tonicity is superimposed, he can not avoid having a fear of missing a whole meaning of the discourse.

In the following version, you may notice that the tonic syllable always occurs mostly on the last lexical item in each tone unit, all of which are regarded as crucial for clear comprehension of the version.

<sup>14</sup> Ex. (context: employers' representative discussing a union wage claim)

// If there is a *CERTain* *degREE* of *flexiBility* // on *THEIR* side // as *WELL* as *OURS* // there IS as I SAY always *HOPE* // that a *SETTLement* might *eMERGE*. // (capitals italicized indicate tonic)

In the following example a further analysis of a part of the discourse shall be introduced with special reference to r-tone:

- <sup>15</sup> Ex. (a) — or that part of it // r which is *NOW* allowed to see the *REcord* //
- (b) — Every organization // r needs a *CENtral* *diRECTing* authority //
- (c) — as much as I would wish // r to *LONG* term *stRUCtural* issues //
- (d) — the form and structure of the modern cabinet // r and the *DIET* it con-  
*SUmes* //
- (e) — Indeed for each minister // r the *TEST* of his *sucCESS* // in of-  
fice — — —
- (f) — Mr. MacMillan's // r three hundred thousand *HOUses* //

In the example (a), if you consider well over this intonation in terms of selectivity, the fact that *NOW* and *REcord* are prominent is conceivable, because what he is saying is *NOW* as opposed to 'before' in the context of where they get no advanced notice about

what he is going to say. You could not have anything there incompatible with ‘allowed’. Therefore what you do in the discourse is the reflection of the speaker’s here and now situation. Thus, it is nonsensical to establish intonation patterns based on the rules to say that this is how you say it. In fact there is no denying the fact that there are many practice materials on intonation which have adopted patterns disregarding the context.

In the example (e), the second tone unit boundary is slightly misleading as it is clear from the data, which is one of the cases where the question of how one tone unit runs into the next phonetically. This proves the fact that the phonological boundary is not necessarily compatible with grammatical one.<sup>16</sup>

In the example (f), the number ‘three hundred thousand’ is a matter of well-known fact. Therefore, at the time of speaking this passage, the speaker treats this number as a package of given information, of which interaction is led to make HOUSES prominent. The reason why the portion of Mr. MacMillan’s is not integrated into the following unit lies in the fact that Mr. MacMillan takes p-tone.

#### D. Analysis of pitch sequences

##### 1. Key

Before the investigation of pitch sequences, a function of Key should be clarified in the frame of tone unit, because in the later analysis the notion of Key shall be much concerned with pitch sequences.

Key is “a level of pitch chosen by the speaker together with an intonation contour in order to convey a particular kind of meaning to the listener.”<sup>17</sup> Generally speaking, there are three significant levels of key in English, such as High, Mid, and Low, each of which has a specific meaning like contrasting, additive, and equative meaning. These levels are not absolute ones, nor relative to the speaker’s own voice, but relative to the pitch of the preceding tonic segment. At the onset of the tonic segment, the first prominent syllable constitutes the so called *key*, whereas the tonic syllable makes up *termination*. See the following example:

*LOST*  
Ex. <sup>18</sup> // p He *GAM*bled // p and *LOST* //  
*LOST*

It is possible to make an observation that the different interpretations of gambling are made by whether this having lost is regarded as a contrast to what usually happens in gambling, or as additional piece of information about what happened when he gambled, or as what you would expect from gambling and losing are equivalent.

##### 2. Termination

Another important factor which constitutes pitch sequences is termination, which refers to the pitch of the tonic. High termination anticipates a high opening in the following utterance, while mid termination a mid-key opening in the next utterance. Low termination, however, imposes no restraints, namely there is no expectation. This low termination is the only one that does not project any assumption upon the hearer. In the following dialog, you

will notice how termination concerns with the interactive meaning created by the speaker and the hearer:

A: What do you think of the weather going to be today?

B: I think it's going to rain.

A: Yes.

Now let us try to make an analysis of the third part *Yes* from the view point of termination. When this response 'Yes' terminates with high termination, it means that you are quite right, namely it conveys the meaning of adjudicative. On the other hand, if it ends with mid-termination, it means 'Yes, I go along with whatever you said or I associate my view point with that of yours, too.' Accordingly, this mid termination brings forth consultative situation. As for low termination it contributes to create an interaction bound equivalence between key and termination. In this case, this low termination does not impose any restraint on the following key choice.

### 3. Pitch sequence

Pitch sequence, which is defined as a formal unit in the intonation component, is the stretch of discourse within which each speaker's actual behavior can be judged against the expectation of utterance-to-utterance locking. In order to elaborate on a relationship between utterance ending termination and utterance initial key, let us refer to the following illustration:

- Ex.<sup>19</sup> (a) Doctor: // p very *IR*ritating you say //  
 Patient: // p *VER*y irritating // p *YES* //  
 (b) Doctor: // p+ it's *DRY* skin // p *IS*n't it //  
 Patient: // p *MM* //

In (a), the doctor's elicitation, ending with high termination, lays restraints on the utterance-initial key choice. Eventually, the tonic syllable of the following patient response corresponds with the previous high termination. Similarly in (b), exactly the same correspondence of constraint can be observed. In my opinion, this sort of agreement being made by both termination and key might be led to the notion of the cooperative principle from the view point of speech act.

In a classroom situation, for instance, a teacher ends his questions frequently with high termination, expecting a response with high key.

If there is any discrepancy between termination and key in intra-sequential organization, reciprocal agreement is violated and the response sounds like non-compliant behavior. For example, in (a) if the patient responds 'Yes' with mid key, it might sound lack of cooperation, whereas in (b) if the patient responds 'MM' or 'Yes' with high key, it would sound as if the question raised by the doctor were a matter of course, suggesting even a kind of anger with the patient.

When it comes to the matter of pitch sequence from the view point of teaching English as a foreign language, I have some pertinent observations to make on the matter of pitch sequences that the learners of English are likely to make pitch sequence discrete one. Even



the TEFL teachers seem to have adopted low termination more often than necessary, which may be led to cut the sequences into small pieces in the process of their teaching.

In order to touch upon a crucial point with regard to high and mid terminations, let me adduce the following illustrations:

- Ex. (1) A: // p It's THREE o'CLOCK // B: // p YES //  
 (2) A: // p It's THREE o'CLOCK // B: // p YES //

Note that there is a significant relationship between pitch level feature at the end of A's utterance (regarding its termination choice) and the pitch level of YES. Informally, we are able to say that by selecting mid termination, A invites concurrence, and in the latter case by selecting high termination, he invites adjudication. It will be seen that availability of this choice adds considerably to the potential complexity of the exchange. The exchange which began like (1), for instance, might continue:

- (3) A: // It's THREE o'CLOCK // B: // p THREE o'CLOCK //  
 A: // p YES //

Here in this situation, the high termination in B's rejoinder is a request to A to declare whether his initial assertion was correct or not. A potent cause of confusion in much work on intonation has, in fact, been the close similarity between this pattern and the use of referring tone which I touched upon already.

- (4) A: // p It's THREE o'CLOCK // B: // r THREE o'CLOCK //  
 A: // p YES //

There is a sense in which B's checking move can be observed in the referring tone. It is not surprising that the traditional connection between such an unexamined phonetic judgement and some kind of 'interrogative' function has often overlooked the fact that they are really two quite distinctive formal choices, whose differential value becomes clear when they are seen in the context of the system from which they are derived.

#### 4. Tone unit boundary

In order to reactivate the notion of tone unit, let me illustrate the following dialog:

- Ex. (1) A: // p ---and WHAT about PETer //  
 (2) B: // r PETer // r HE now works // p in the INstitute //

In this dialog a number of interesting questions arise. First of all, in the B's utterance we have tone units there side by side in which all intonation choices are the same. Namely, both tone units have r-tone with mid termination and only one prominence in each tone unit. Then what is the reason for that tone unit boundary? Why this tone unit boundary is necessary there? Apparently in (2) PETer seems to be a kind of redundancy, but it has entirely separate function. And what is more, HE functions to implicate larger discourse. Thus 'HE' is projecting a world in which a number of people are available for reference. Here in this utterance, Peter plays a role of topic marker or discourse marker and the function of Peter is regarded as that of replacing 'To be honest with you,' 'Actually,' all of which acquire a sense of social togetherness. On the other hand, if Peter assumes p-tone in (2), the speaker B withdraws himself for a moment from the interaction with A. Whether

Peter takes r-tone or p-tone, Peter is articulated as an independent tone unit and it is not syntactically related to HE in the following unit. In other words, Peters in both tones are prominent in spite of the fact that they do not represent any sense selection. In this dialog it is absolutely impossible to put alternate words which are incompatible with Peter, such as a man with a beard or a politician and so on. Therefore logically they must be prominent in order to make other kind of selection.

#### 5. Further notion of tone unit

In this section the notion of tone unit, which is defined as a minimal useful stretch of discourse, is going to be pursued. For this purpose, first of all, it is important to distinguish the notion of 'meaningful' from that of 'useful.' The former conveys a sort of standard dictionary-semantic theory sense, whereas the latter a communicative sense, so that something is useful if you are able to relate it to in some way on going piece of discourse. Thus, it is reasonable to say that unless you have at least one tone unit, what you are going to talk is not useful. In order to demonstrate this function of tone unit, let me adduce the following example:

Ex. (1) A: // What are you doing //

(2) B: // p (I'm) TRYing to find a *PIN* //

// r (I'm) TRYing to find a *PIN* //=(but I have not much of success, or this can be interpreted to be sarcastic depending upon the situation.)

In the above example (2), B's whole tone unit answers the expectation raised by the A's question, but not the question raised by (A).

(3) A: // Can you lend me a pin //

(4) B: // (I'm) TRYing to *FIND* a pin //

Here new distribution of prominence is reflected by the situation created by the question.

In (2) *pin* is not replaced with a pronoun, but in (4) a pin is replaced with a pronoun.

(5) A: // I wish you could find a pin //

(6) B: // I'm TRYing to (find — — — — —) //

In regard to the relation between (5) and (6), there is no grammatical consequence.

(7) A: // Why do you need a pin //

(8) B: // Because my *SHIRT* is torn //

In (7), the term 'Why' has already covered the meaning of 'because,' therefore it would be feasible to say that you can leave it out as redundancy. In other words the whole thing, namely the interaction between (7) and (8) is based upon the notion of cooperative principle. Thus, it would be possible to say that the notion of 'usefulness' does not necessarily imply answering the question that has been asked but carrying new information.

(9) A: // What did you think of the film //

(10) B: // p i en *JOYED* it // — — — Answer and usefulness

// r i en *JOYED* it // — — — Attitudinal implication

Here attitudinal implication can be interpreted as the the one which means 'It was not as much as I had expected.' In other words this means that I am in fact leaving it unsaid that

bit which your question really demands.

In order to elaborate on the notion of tone unit with reference to the relationship with the grammatical structure, let me cite the following examples:

- Ex. (1) // p i TRIED to *HELP* him //
- (2) // p i *TRIED* // p to *HELP* him //
- (3) // r i *TRIED* // p to *HELP* him //
- (4) // p i REAlY *TRIED* // p to *HELP* him //

In most cases, it is said that there are two bases on which we are able to decide where to put a tone unit boundary: a). When we come to the end of a useful chunk. b). When we want to make a new choice in one of the intonation systems.

In (1), TRIED to *HELP* functions as a predicate, a result of which may bring about one tone unit just like the utterance 'I wanted to ask him.' In (2), however, to *HELP* him means in order to help him. Accordingly the utterance is separated into two tone units just like 'I waited to ask him.' is. In (3), what the utterance means is 'I did not help him.' Finally the meaning of the utterance (4) is ambiguous, because it has two meanings, such as (a) I really tried in order to help him. (b) He wanted help and I really tried to help him. Naturally, in cases (2), (3) and (4), there should be a comma in each place where the tone boundary exists. However, the point is that the comma you put in your writing actually shows no reflection when you speak it. Thus, it is conceivable to say that the intonation disambiguates grammatical structures.

## II . Intonation and teaching of pronunciation

### A. Pedagogical considerations

According to Brazil (1980), he expands his views "on the relationship between tone units and grammatical ones as deriving from the speaker's Markovian, step-by-step real-time decisions about the status of individual words in the discourse."<sup>20</sup>

The students of English cannot assign intonation to an utterance on the basis of attitude nor on syntactic structure. What they can do in the business of interaction in the real discourse is to find out an access to discoursal context and to participate in discoursal meaning. From the view point of pedagogy, there are three important factors affecting the teaching of intonation:

"(1) the need to enrich the comparative poverty of the language of the classroom, not simply in terms of vocabulary and topic, but crucially in terms of the role of speakers in relation to each other.

(2) the need to treat intonation not as a function of grammar or attitude, but primarily as a function of discourse, with implications for context of communicative value of each part of each utterance.

(3) the need for systematic integration of intonation into the language syllabus."<sup>21</sup>

The best approach to devising materials for the factors (1) and (2) would be to integrate a

dialog into a drama in which each participant can fulfil the role of his own through a process of interaction. For the factor (3), a possible pedagogical sequence for teaching intonation, which could be adjusted in the light of experience, would be as follows:

- “(a) Recognition of tone units and tone unit boundaries.
- (b) Recognition of prominence in
  - 1). tone units with only one prominent syllable, i.e. the tonic.
  - 2). tone units with two prominent syllables, the second being tonic.
- (c) Production of a tone unit with
  - 1). one prominent syllable, the tonic.
  - 2). two prominent syllables, the second being tonic.
- (d) Recognition of tones
  - 1). discrimination of p and r.
  - 2). discrimination of p and p+, r and r+.
- (e) Production of tone units with correct tone choice.
- (f) Recognition of ‘chunking’ effect of pitch in monologue; i.e. an informal recognition of the fact that a shift to high key following a low termination marks the beginning of a new topic and of significance of the pitch sequence in structuring topics.
- (g) Recognition of termination
- (h) Recognition of key in
  - 1). tone units with one prominent syllable, the tonic.
  - 2). tone units with two prominent syllables, the second being tonic.
- (i) Production of tone units with correct tonic location, tone choice, key and termination.”<sup>22</sup>

It is most unlikely that the syllabus must cover all of these nine stages thoroughly, but depending upon the students’ need some aspects of syllabus shall be marked off. For example, the students who want to develop reading skill should concentrate on the second stage(b), whereas the students who need oral skills for general communication with native speakers of English should cover the first five stages.

#### B. Teaching of pronunciation

When the citation form of // p PHO / to / GRAPHic // is observed from the view point of phonology, it is well admitted to say that the vowels having been italicized are protected vowels, which have full forms of pronunciation, so that they are not reduced, whereas the second vowel / ə / has a possibility of variation.

// MEMory //

// p PHO to graphic MEMory //

In this instance, / æ / in graphic is not reduced whether it is a citation form or not.

// MEMory was pho to GRAPHic //

In this instance, however, the diphthong / ou / in pho is well protected even if it is not prominent. Basing upon the phenomenon of the above example, it is possible to say that syllables are divided into two classes: protected and unprotected ones. Protected syllable is classified

into prominent and non-prominent ones and prominent syllable is divided into tonic and non-tonic ones. The primary stress falls on a tonic syllable, the secondary on a prominent, while tertiary stress falls on the protected syllable.

In order to consider the question of the teaching pronunciation in correlation with the notion of protected vowels, let me go back to the notion of selectivity. See the following example:

// p it's *JOHN* //

In this utterance with prominence 'John,' the speaker is projecting here and now existential paradigm which includes John. Using this sort of personal pronoun, we are able to make a point clear, because personal name is not connected with any other semantic scheme. Therefore, this brings out clearly that the word John has uses in the present conversation, not meaningness associated with something in an abstract system.

In this stage it is possible to say that prominence may indicate sense selection or item selection, and unless you have a context, these two are undistinguishable. Therefore, if you are teaching a set of words, you are likely to say that this is a word as opposed to another word, rather than this is a sense realized by this word rather than another sense. Because very often in sense selection you may have a number of different items realizing the same sense. You get what we call existential synonyms. Therefore in the realm of sense selection, we have synonyms, antonyms, and existential synonyms. However, there is the third possibility. Suppose you are teaching someone how to pronounce some English word, you may have an opportunity to a teacher saying: "How do you pronounce that word?" Then if someone says, "It's *JOHN*." [its dɒn], then immediately after this, his incorrect pronunciation is pointed out and is asked to replace [dɒn] with [dʒɒn], of which practice projects the contrast between the two pronunciations. In this case the correction [dʒɒn] is involved in the prominent tonic syllable, so there is no problem. Suppose some learner mispronounces the word 'controversial' as the form of [kəntrævərʃəl], then he is likely to be corrected by saying // CON *TRO*versial //, which is entirely unfunctional citation form and your correction is most likely to destroy the conventional way of pronunciation. This sort of destruction would be observed at the time when learners are involved in substitution drill in pattern practice. Therefore, in order to let the learners practice to form the pronunciation of segmental vowel sounds, the best way is to put a word of having prominences in a discourse and let them identify the place where the prominent syllables are and concentrate entirely upon the sounds that are communicatively in prominent syllables.

Ex. "Context:<sup>23</sup> (Measures for traffic control on motorways in fog.)

I'm going to intro*DUCE* + mm + as a + *certainly* as a *TRIAL* a + a *measure* of segre*G*ation + this will one *can* not make it con*PUL*sory + because of the *difficulties* of en*FOR*cement + but + er + I *hope* that *motorists* may *feel* that it would be *SEN*sible for *heavy* and *light* *TRA*ffic + to be *segregated* in conditions where *visibility* becomes *GREAT* and where *BRA*king + *POW*er + is *between* *heavily loaded* *VEH*icles and the *LIGH*ter *vehic*le is *very* *Different*.

In the above discourse example the sounds being involved in the italicized syllables in capital letters should be concentrated and practiced thoroughly for the sake of the correct production of segmental vowel sounds.

# Notes

1. The cooperative principle (adopted from Grice (1975)):
 

In this principle four categories of maxims are distinguished as follows.

  - (1) Quantity: Give the right amount of information: i.e. (a) Make your conversation as informative as is required. (b) Do not make your contribution more informative than is required.
  - (2) Quality: Try to make your contribution one that is true: i.e. (a) Do not say what you believe to be false. (b) Do not say that for which you lack adequate evidence.
  - (3) Relation: Be relevant.
  - (4) Manner: Be perspicuous: i.e. (a) Avoid obscurity of expression. (b) Avoid ambiguity. (c) Be brief. (d) Be orderly.

Among these maxims the first one is well counted on in the process of the interaction between a speaker and a hearer.
2. D. Brazil, *The Communicative Value of Intonation in English*. ELR, University of Birmingham, 1985., p. 127.
3. This sort of innate feature of human voices was discussed with and supported by J. McH Sinclair at Chugoku Junior College in Okayama in summer, 1986.  
For another remarks, refer to Cruttenden (1986: pp. 168–9; p. 183.)
4. *Ibid.*, p. 129.
5. *Loc. cit.*
6. D. Brazil, *Discourse Intonation II*. Discourse Analysis Monographs No. 2. ELR, University of Birmingham, 1978., p. 39.
7. When p-tone occurs in oblique mode, it is regarded that the mode is usually interpreted not as a hearer's sensitive presentation, but as universal truth.
8. *Ibid.*, p. 42.
9. D. Brazil, M. Coulthard & C. Johns, *Discourse Intonation and Language Teaching*. London: Longman, 1980., p. 54.
10. *Loc. cit.*
11. *Loc. cit.*
12. The incidence of prominence represents the speaker's assessment of the information load carried by elements of his discourse. (Brazil, 1985, p. 55.)
13. *Ibid.*, p. 28.
14. G. Brown, *Listening to Spoken English*. Longman, 1977., p. 92.
15. This extract is from Brazil's seminar in spring 1985 at the University of Birmingham.
16. Halliday (1967) says that a tone group does not necessarily correspond to any grammatical unit at all: it may, for example, extend over the final element in one clause and the whole of the next.
17. Jack Richards, J. Platt & H. Weber, *Longman Dictionary of Applied Linguistics*. Longman, 1985., p. 152.
18. D. Brazil, M. Coulthard & C. Johns, *Discourse Intonation and Language Teaching*. Longman, 1980., p. 65.
19. *Ibid.*, p. 25.
20. *Ibid.*, p. 121.

Brown (1977) has put forth his views as to the relationship between tone units and other linguistic units as follows: "The most general and important function of tone group division then must be seen to be the marking off of coherent syntactic structures which the listener must process as units. (pp. 87–8.)

21. D. Brazil *et. al.*, *Discourse Intonation and Language Teaching*. Longman, 1980., p. 128.
22. *Ibid.*, pp. 132–3.
23. G. Brown, *Listening to Spoken English*. Longman, 1977., p. 94.

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## Bibliography

- Bolinger, D. (ed.), *Intonation*. Penguin, 1972.
- Brazil, D., *Discourse Intonation*, Discourse Analysis Monographs, No. 1., Birmingham: ELR, University of Birmingham, 1975.
- \_\_\_\_\_, *Discourse Intonation II*, Discourse Analysis Monographs 2, ELR, University of Birmingham, 1978.
- \_\_\_\_\_, 'Intonation and connectedness in discourse' in Ehlich, K. and van Reimsdijk, H. *Tilburg Studies in Language & Literature* 4., 1983.
- \_\_\_\_\_, *The Communicative Value of Intonation in English*. ELR, University of Birmingham, 1985.
- Brazil, D. Coulthard, M. and C. Johns., *Discourse Intonation and Language Teaching*, Longman, 1980.
- Brown, G., *Listening to Spoken English*. Longman, 1977.
- Cruttenden, A., *Intonation*. Cambridge University Press, 1986.
- Crystal, D., 'Intonation system of English,' in Bolinger (ed.) *Intonation*. Penguin, 1969.
- Grice, H.P., 'Logic and conversation' in Cole and Morgan (1975: 41–58.)
- Halliday, M.A.K., *Intonation and Grammar in British English*. The Hague, Mouton, 1967.
- Richards, J., Platt, J. and H. Weber., *Longman Dictionary of Applied Linguistics*. Longman, 1985.
- Pike, K.L., *The Intonation of American English*. The University of Michigan Press, 1945.

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