

INTONATION, MEANING AND GRAMMAR

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One may well wonder why a paper on intonation should appear in a collection of papers on grammar. The answer is, in fact, rather simple: grammar has to be pronounced and that is precisely one of the roles that intonation plays in spoken discourse. I think it is appropriate to think of intonation as the pronunciation of grammar.

Take, for instance, Professor Halliday's illustration of the transitivity system with his example of a commotion in the air up above us, and in response to a question such as "What's that?" or "What's going on?" a statement is made in respect to birds flying overhead.

Grammar is required to state what is going on:

1 Some birds are flying overhead

We recognise the reference to a process in the selection of a verb (*fly*), the reference to an actor involved in the process in the selection of a nominal group (*some birds*) and the reference to a circumstance in the form of an adjunct of location (*overhead*); thus we recognise the transitivity in the ideational metafunction. Furthermore, we recognize the mood in the interpersonal metafunction by the position of the subject before any finite form, and in this case, we recognize a declarative clause for a statement (or response). And in the textual metafunction, we recognize *some birds* as the theme and *are flying overhead* as the rheme. Thus we recognize the selections in the grammar that English makes available to the user from all the available options.

However, this grammatical selection to make reference to "the commotion in the air up above us" has to be realized in substance the physical manifestation of language. The options

available are either various forms of a visual nature (including writing, of course) or speech. Now just as words require pronunciation, so does grammar. In this particular case, we are quite likely, in the envisaged situation, to say 1 as a single intonation unit, with a falling tone accompanying *-head*

1a some birds are flying over\underline{head}

This particular intonation arrangement indicates that the whole clause is to be recognized as a single piece of information, with all its information being regarded as new, or fresh, and, moreover, as a piece of information being complete in itself and presented as a statement. Thus, the grammatical selection of 1 has now been “articulated” in substance as 1a.

This kind of integration of information with grammar is one of the three reasons why I personally prefer Halliday’s treatment of intonation to two other major treatments. I was brought up on the traditional British school of intonation (Jones, Armstrong & Ward, Gimson, O’Connor & Arnold) with its emphasis on attitudinal meanings. However that tradition lacked any sense of integration of intonation with either grammar, or information structure, or indeed with the rest of phonology. In my contacts with the Summer Institute of Linguistics, I became familiar with K.L. Pike’s model of intonation, in particular with his classic *Intonation of American English* (1945); he, too, emphasised the attitudinal role of intonation, but at least he did integrate intonation with the broader perspective of a phonological hierarchy (see also Pike 1967). Both Pike and the British school related intonation to the “grammar” of statements, questions, commands and exclamations, but there was no attempt to integrate intonation as a relevant form of grammar on the scale that Halliday had demonstrated (Halliday, 1967, 1970).

Halliday, like Pike, presented intonation as a part of the phonology of a language, related in a hierarchical fashion to other manifestations of phonology (rhythm, syllable, consonant and vowel phonemes). He also presented intonation as an integral factor in the 'lexico-grammar' of English, and, crucially, expounded the semantic dimension of information structure. The 'segmentation' of spoken discourse into discrete units of intonation - a sub-system known as 'tonality' - represents the speaker's division of the total message into separate units of information. The location of the tonic syllable within each unit of intonation - a sub-system known as 'tonicity' - represents the speaker's decision on the focus of each piece of information. The third sub-system - known as 'tone' - represents the speaker's handling of the relationships between units (eg major, minor, dependent) and between a unit (as a message) and an addressee in the sense of stating, questioning, commanding, etc.

Halliday's view of the roles of intonation in the semantic dimension of the organization of information in discourse, in its close involvement with the lexico-grammar, and in its place within the phonological hierarchy, is a far more comprehensive and integrated view than the traditional British school and adds significantly to Pike's model.

However, before I launch into an overview of intonation as the pronunciation of grammar, there are two other points I would like to make. First of all, I have not yet done full justice to Pike's model. I very much appreciate Pike's exposition of the higher levels of phonology above the level (or level) of the unit of intonation. There

are, indeed, higher levels of phonological patterning in discourse that Halliday does not acknowledge; one level is akin to paragraphing in the written mode and marks off topics as a kind of staging device in the structure of a discourse; another level is what I call 'the prosodic composition' of different kinds of discourse, or genres - in other words, the prosodic characteristics of a whole discourse. I shall return to these two topics shortly.

Secondly, when teaching from Halliday (1970), I could not help being struck by the different kinds of "meaning" that intonation was said to convey. 'Statements', it seemed to me, belonged to a quite different kind of meaning to 'dependent clause'; both these "meanings" were quite different in kind from notions of 'forcefulness' or 'reservation'; new and given information was of a different order again; likewise, 'unit of information'. This "over-broad" inclusiveness of grammar was a principal complaint by Crystal (1969a) - whose 'phonetic' description of English intonation (Crystal 1969b) has not yet been bettered, in my opinion. Hence, in my appraisal of Halliday (1970), Fawcett's concept of categories, or 'slices', of meaning appealed to me (Fawcett, 1980). I have thus found it useful to present the functions of intonation in terms of six 'slices' of meaning, or roles in discourse. (A similar kind of categorization is to be found in Brown, Currie & Kenworthy, 1980, Couper-Kuhlen, 1986, and Crystal 1997). I wish, therefore, to make brief reference to two 'slices' of intonational meaning, before I launch into intonation as the pronunciation of grammar.

The first function of intonation I want to describe is related to a discourse as a whole. Different genres have different "sounds". If you switch on the radio "at random", you

can tell almost immediately what kind of language event is taking place, even if the actual wording is muffled or unclear - as it might be against excessive noise interference. The “sound” of news reading is noticeably different from other monologues; quite different, for instance, from a weather forecast, or a narrative, or poetry, or preaching, or prayer, and so on. The “sound” of an informal conversation is different from a debate, or an interview, or an interrogation, or a drama, and so on.

The distinctive “sound” of a genre is its ‘prosodic composition’. Intonation is a vital contributor to prosodic compositions by way of length of intonation units, proportions of falls and rises, degree of variety of tones and pretonic patterns. Other ‘paralinguistic’ features include variations in tempo, loudness and pitch; degree of rhythmicity, resonance and tension; and the possibility of vocalizations like whisper, huskiness and creaky voice. All of these ‘paralinguistic’ features typically characterize a whole intonation unit or, indeed, a sequence of them. ‘Prosodic composition’ then refers to the totality of such features characterizing a whole discourse.

One example alone will have to suffice. What is it that makes prayer sound like prayer? Look at the following transcript of a well known prayer as recorded on radio; notice that each intonation unit, except the final one, contains a level tone.

2 our * -father* (*trem)
 - which art in -heaven
 - hallowed be thy *-name* (*trem)
 - thy kingdom -come
 - thy will be -done
 . in earth . as it is in -heaven
 - give us this -day
 . our daily -bread
 - and for give us our -trespasses
 - as we for give -them

- . that trespass against -us
- and lead us not into tempt-ation
- but *de liver us* from -evil (*trem)
- for thine is the -kingdom
- . the power and the -glory
- for ever and -ever
- amen

The pretonic pattern is usually level too, but at a slightly higher pitch than the tone itself. The only significant pitch movement is in the final unit: a fall to signify completion. Also each intonation unit is followed by a pause of stressed syllable length (symbolized by -), except where a clause is not completed (cf. lines 5-6; 10-11; 14-15), in which case the pause is much shorter (symbolized by .).

In case it is argued that these characteristics are caused by the “choral” effect of a congregation speaking in unison, I add here a second example, said by the minister by himself, impromptu, at the beginning of the service. Exactly the same characteristics prevail.

- 3 al mighty -God
- . and our most merciful -father
- we thank Thee that we can come to -Thee (*trem)
- in that name which is above every other *-name* (descend)(*trem)
- the * name* of our Lord and Saviour Jesus -Christ
- and as we especially remember to -day
- the resurrection . of Jesus -Christ
- we ask Thee in Thy -mercy
- that Thy presence . will be -with us

-
and with
all who
will share
. this -
service

(descend)

- . with us as -well

-
for this we
-ask

Our cultural conception of this particular kind of spoken discourse includes this peculiar, distinctive, prosodic composition. (The items in the right bracketed column indicate paralinguistic features that relate either to the whole unit or to the part marked off by *; trem = tremulousness.)

Try saying either prayer with a variety of tones, etc, and you lose the sense of the “sound” of prayer; to some, that may even sound like mocking. For further reading on the genre function of intonation, see Tench (1990:476-514), Crystal & Davy (1969, 1975) and Johns-Lewis (1986).

The second function of intonation above the level of the clause is related to the equivalent of paragraphing in the written mode. In the same way as a writer organizes their total message into a series of topics contained in paragraphs, a speaker uses certain features of intonation to indicate what I have called “phonological paragraphs”. This phonological paragraphing is most distinctly heard in newsreading, where a script, organized in written paragraphs, is read aloud. The newsreader does not “tell” you when one news item finishes and the next one begins, except by intonation. A new ‘paragraph’ is signalled by a relatively high pitched ‘onset’ syllable of the first intonation unit; each successive onset syllable is pitched lower. The end pitch of falls is successively lower too; the final pitch is not only lowest of all in sequence, but is also accompanied by a slackening of pace in the final unit and followed usually by a distinctly longer pause. The next unit will be the beginning of a new paragraph and set at a noticeably higher pitch.

Phonological paragraphs have also been called 'paratones' (on the analogy of 'paragraph') and 'pitch sequences'. For further reading, see Lehiste (1979), Brazil & Coulthard (1979), Brown & Yule (1983) and Couper-Kuhlen (1986).

Intonation can thus be readily seen as the potential pronunciation of discourse and topics. We now turn to its roles as the agent of pronunciation of grammar. I see at least three distinctive roles for intonation in relation to grammar, involving the ideational, interpersonal and textual metafunctions. Firstly, intonation realizes the speaker's perception of the organization of their information both ideationally and textually; secondly, it realizes the interpersonal dimension in types of communication; and thirdly, it realizes the speaker's attitude accompanying the message. It is possible to argue for an additional fourth role, in disambiguating potential syntactic 'minimal pairs', where an identical 'surface' wording may 'hide' two significantly different syntactic patterns; however I acknowledge that it is also possible to argue that these cases may simply be examples of different organizations of information involving distinctive syntactic patterns which happen to require identical strings of words. Nevertheless, in order to draw attention to these cases, particularly as potential sources of difficulty for learners, I am treating them separately as an additional fourth role for intonation in grammar. There is, therefore, a total of six different roles for intonation - six different kinds or 'slices' of meaning - in spoken discourse.

Thus, the third function of intonation relates to the speaker's own perception of their organization of information. All three sub-systems - tonality, tonicity and tone - are involved. Tonality - the "segmentation" of discourse into individual units of intonation in sequence - represents the speaker's perception of the number of units of information. In 1a above, the speaker perceives the total message as one single piece

of intonation; in 2 and 3, each line represents the speakers' "management" of the total "message" as single, discrete, pieces of information. There is the possibility of systemic choices; if instead of the response in 1a, the speaker perceived the message as two units of information, the possibility of a different "segmentation" is available, as for example:

1b some birds | flying over head

In this case, the speaker's immediate response may have been to identify the actors involved, and then add as, perhaps, an afterthought, what the actors were doing. Thus, there is a choice in the tonality system.

However, there is good reason for simple, single, straightforward clauses that do not exceed five stresses to be realized as a single intonation unit. We use clauses to convey information in grammatical terms as we use intonation units to convey information in phonological terms. Clauses and intonation units are thus typically co-extensive. This typical co-extensiveness is captured in the term 'neutral tonality'. Cases like 1b, where an intonation unit is not co-extensive with the whole clause, are referred to as "marked tonality".

An intonation unit - whether in neutral or marked tonality - has one obligatory component, the tonic segment. This contains the most prominent stress (= tonic syllable) and carries the most significant pitch movement of the whole unit. The location of the tonic syllable relates to another sub-system, known as tonicity. In English, there is a very high level of expectation that the tonic syllable will be found on the last lexical item in each intonation unit, as in 1a, 1b, 2 and 3. This expectation is in the order of 80% probability. It usually means that all the information in the

intonation unit is new; thus the focus of intonation is broad. When the tonic syllable is found in its expected place, the tonicity is described as ‘neutral’. ‘Marked tonicity’ is thus the location of the tonic syllable on either a non-lexical (or grammatical) item or on a non-final lexical item. This usually means that the focus of information is narrow, because part of the information within the unit is not new, but ‘old’, or ‘given’. For instance, a person might wish to correct the information given in 1a/1b, as follows

4 A : what’s \that

B : some birds are flying over\head

C : they’re actually \fighting overhead

C’s utterance is one intonation unit, but with marked tonicity; the focus is narrowed to *actually fighting*, with *they’re* and *overhead* given. This shifting of the tonic to any position in the clause/intonation unit is a well-known feature of English intonation.

The tonic segment is usually preceded in the intonation unit by a stretch of sound known as the pre-tonic segment. I say “usually”, because there are often occasions when the tonic syllable actually occurs first as in

5 \yes

6 \Hyderabad is where we are meeting

The pretonic segments of 4 are:

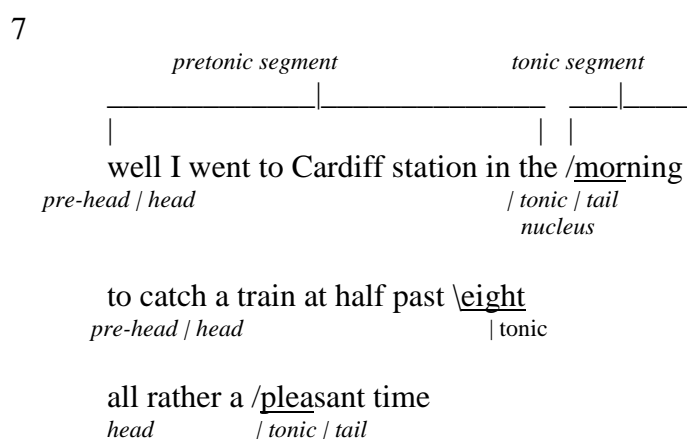
A : what’s

B : some birds are flying over

C : they’re actually

In traditional terminology, the pre-tonic segment comprises a *head*, which consists of the first stressed syllable (the *onset* syllable) and all other stressed and unstressed

syllables up to, but not including, the tonic syllable. Any unstressed syllables preceding the head are called the *pre-head*. The tonic segment comprises the tonic syllable, often also called the *nucleus* or *nuclear syllable*, and any following stressed or unstressed syllables, called the *tail*. The tonic syllable is marked by underlining (although other linguists use a variety of other typographically prominent devices: CAPITALS, *italics*, **bold**). An example of the tonality and tonicity of a turn in a dialogue is given below:



(from Tench (1990: 489))

Notice how the three intonation units co-extend with clauses, even though the second clause is non-finite and the third is verb-less. Notice too how the tonicity is neutral in the first two units, but marked in the third, because the speaker perceives *time* as given.

Tonality reflects the ideational metafunction, tonicity at least one aspect of the textual metafunction. Tone also reflects textuality in the sense that it represents the speaker's perception of the status of information - the relative importance of each successive piece of information. Halliday (1967) drew attention to differences between *major* information signalled by a falling tone and *minor*, signalled by a low rising tone.

Referring to the “commotion in the air up above us”, a person could have commented thus:

8 some birds are flying over\underline{head} | at the /underline{moment}

The fall in the first unit (whose boundary is marked by | in this presentation, though by // in Halliday’s work) designates that piece of information as the major piece, and the rise in the second as relatively less important, thus minor.

A rising tone also indicates incompleteness and with this meaning precedes a unit with a falling tone. Compare

9 this is my first visit to \underline{India}

as a major piece of information, with an identical wording but rising tone

10 this is my first visit to /underline{India}

which leaves the listener with the distinct impression that more is to follow, as *This is my first visit to India*

Besides the fall and the rise options, there is a third option, the fall-rise. At this point, I need to refer to what Professor Halliday has called the ‘dissociation of associated pairs’, or ‘de-construct’, to explain the development of the fall-rise in English. Learners of English intonation may well find the form and meaning of the fall-rise problematical if it does not exist in their mother tongue.

Falls are associated with major information; this particular link up between a particular form and a particular meaning is an “associated pair”. Similarly the link up between rises and incomplete information is an “associated pair”. Historically, it appears that English speakers managed to combine the two forms to produce a

complex, a fall followed immediately by a rise, which can be articulated on a single syllable if need be. The complex form combined the two meanings: a major piece of information which is actually conveyed in the lexico-grammar, and a sense of incomplete information implying that there is more to follow - or, to be more strict, there is additional information that is not conveyed by the lexico-grammar, but is implied, and that the addressee is expected to understand.

If, for example, I am asked *Is this your first visit to this part of the world?*, I could honestly reply

11 this is my first visit to \India

This combines the sense of major information of 9 and the expectation of additional information of 10. And indeed, in my case, there *is* additional information, since I have visited another country in this part of the world, even though I might feel it unwise to mention that country by name given the current political and military tensions!

The sense of implication of additional, though not verbalized, information lies behind the use of fall-rise in another context. The preceding example involves the meaning of the whole clause, but a fall-rise can accompany just the theme of a clause, too, as in

12 \this | is my first visit to \India

In this case, the theme is highlighted, as if the speaker wished to say something like *this present visit (is, in fact, my first visit to India)*.

Thus the total tone system to signal status of information is as follows:

fall : \ = major information (this is my first visit to \India)

(final) rise : / = minor information (this is my first visit to \underline{India} | this /year)

(non-final) rise : / = incomplete information (this is my first visit to /underline{India} |)

(final) fall-rise : \checkmark = implication (this is my first visit to \underline{India})

(non-final) fall-rise : \checkmark = highlighting of theme (\underline{this} | is my first visit to \underline{India})

But this is not whole story of intonation as grammar pronounced.

A fourth role of intonation relates the clause to an interpersonal function. As is well known, a falling tone can signal a statement, a *wh*- question, a command or an exclamation, and a rising tone can signal a polar (*yes/no*) question, as in 13

13 is this your first visit to /underline{India}

The falling tone appears to signify that the speaker is confident of the validity of the proposition contained in the lexico-grammar, whereas the rising tone signifies that the speaker is uncertain, but willing to defer to the supposed superior confidence of the addressee. In 9, the speaker knows, and tells; in 13, the speaker does not know, defers to the supposed knowledge of the addressee, and asks.

It might then be asked why, typically, *wh*-questions are accompanied by a falling tone if they represent asking for information. The answer is that the speaker is confident about parts of the proposition, and especially the process signalled by the verb, but is uncertain about just one other participant or circumstance in the proposition. For instance, in 14

14 where are you \underline{staying} in Hyderabad

the speaker know that *you are staying in Hyderabad*, (actor/process/circumstance) but not the precise location; similarly in 15

15 when did you arrive

the speaker knows that *you arrived* (actor/process), but not the circumstance of ‘point of time’. Compare these again with 13, in which the speaker indicates lack of any knowledge about the validity of the proposition.

I call the case of the speaker knowing and telling ‘the speaker's *dominance*’, and the case of the speaker not knowing and asking ‘the speaker's *deference* to the addressee’. Dominance is paired with falling tones, deference with rising. At this point, we can again refer to Professor Halliday's notion of ‘dissociation of associated pairs’ as another instance of semogenesis, language's inherent capability of providing new meanings. English speakers can dissociate the rising tone from a polar interrogative and allow it to accompany a declarative clause, producing a “hybrid”: a kind of statement but with deference to the addressee, as in 16

16 this is your first visit to/India

What this amounts to is a *query*, which might possibly be the result of a mis-hearing, or surprise (or even disbelief) at what one has heard. Likewise, English speakers can dissociate the falling tone from a declarative/imperative/exclamative clause and allow it to accompany a polar interrogative, producing a different “hybrid”: a kind of question but with speaker dominance, as in 17

17 is this your first visit to \uIndia

What this amounts to is a kind of question in which the speaker indicates confidence in knowing the answer (*I'm pretty sure that this is in fact your first visit to India*); it is still intended as a kind of question, but it is a *conducive* question (Halliday calls it a

“forceful” question) in that it conduces, or constrains, the addressee to a specific, and expected, answer.

However, most polar interrogatives are accompanied by a rising tone, which is thus the neutral tone for *yes/no* questions. The falling tone is the neutral tone for statements, commands, *wh*-questions and exclamations. Yet the question might still arise in the reader's mind as to how we know whether a rising tone signals a *yes/no* question at times, and incomplete or minor information at others. The answer, in theory, is quite simple, though in practice it is occasionally difficult to resolve. Rises indicate incomplete or minor information in intonation units (or clauses!) that are dependent on other units; if a unit with a rising tone - especially if it accompanies a declarative clause - closely precedes or follows (usually with minimum or no pausing) a unit with a falling tone, then it is usually perceived as being dependent on that unit. Rises indicate deference in independent units of intonation, which usually - though, as we have seen, not always - accompany a polar interrogative clause. The crucial matter is the perception of dependence, or independence ; most of the time such perception is unproblematical.

One other point is worth noting in connection with intonation's role in the interpersonal metafunction, which is of particular interest to language teachers. In the language teaching profession, we have become used to recognizing a much wider range of communicative functions (discourse functions or speech acts) than just the traditional five (statements, two kinds of question, commands and exclamations). Following a categorization of communicative functions found in Leech & Svartvik (1994), there is a wide range of functions that can be labelled

information/reality/belief e.g. answers, reports, denial, agreement, disagreement, hypothesis, doubt, etc; a second wide range labelled *influencing people* (known to others as *suasion*) e.g. requests, pleas, demands, coaxing, advice, suggestion, etc; and a third wide range labelled *social interaction*, e.g. greeting, farewell, thanking, acknowledging, regrets, apologies, etc. In a study reported at length in Tench (1990: 318-381), I discovered that in whatever category any communicative function belonged to, a fall represented speaker dominance, i.e. the speaker knows and tells, or the speaker assumes authority in influencing the addressee's action, or the speaker expresses primarily their own feelings in social interaction; and a rise represented speaker deference, i.e. the speaker does not know and asks, thereby deferring to the presumed superior knowledge of the addressee, or the speaker leaves the final decision for action to the addressee, or the speaker considers the addressee's feelings in social interaction.

A couple of examples will have to suffice, one from *suasion* and one from *social interaction*. *Shut the door* with a fall sounds like a command, with the speaker assuming that they have the authority to expect the addressee to comply (as, for instance, a parent towards their child):

18 shut the \door

But

19 shut the /door

sounds more like a request or a plea, expressing perhaps merely the speaker's wish or hope that the addressee will comply. One might even "hear" a trace of *please*, or *will you?*, which, if verbalized, would have been accompanied by a rise:

19a shut the /door will you

A neat example from social interaction is the expression of *thanks*.

20 \u005Cthanks

simple expresses the speaker's feeling, but

21 /thanks

acknowledges the (feelings of the) supplier of the goods/services. Knowles (1987: 195) confirms this very example.

Thus, rising tones in independent intonation units signal speaker deference. Falling tones represent both speaker dominance and major information and thus act as a kind of default case. In other words: expect a falling tone, unless there is good reason for an alternative (speaker deference, incomplete or minor information, or the 'implications' of fall-rises).

A third factor at the level of clauses constitutes the fifth role that intonation plays in English discourse. I need not specify English in this context, because it seems to be a universal feature of language, that attitude is expressed through intonation. I do not intend to go into much detail here as the account of intonation's role in attitudinal expression is well known. For a survey of descriptions and a critical review, see Tench (1996: chapter 5). Suffice it to say that attitude is expressed through *degrees* of falls, rises and fall-rises - not that each attitude has one particular manifestation; rather, strengths of feeling correspond to lengths of pitch movement. Thus, whereas 16 represents a query, a higher rise represents, perhaps, greater surprise. And whereas 13 represents a plain question, a rise that did not rise far, say to mid-low pitch only, represents a sense of a non-committal or low degree of interest.

On the matter of forms, two other points need to be made. On the one hand, an intensification of feeling in falls can be signalled not only by a higher than normal pitch movement (Halliday's 1+), but by a complex rise-fall, (/\, Halliday's 5); the latter's meaning is even stronger than the former's. On the other hand, routineness (even boredom) can be signalled by a mid level tone (-), enabling the speaker to opt out of choices of either the system for indicating status of information or the system for indicating dominance or deference. Thus the tonal resources for the expression of attitude include high and low varieties of falls, rises, fall-rises and rise-falls as well as the additional of the level tone. It is for this very reason - the variation of degrees of pitch movement on the basic tone choices - that this resource is referred to as *secondary tones*, and, by some, as *paralanguage*.

This secondary, or paralinguistic, resource extends to variations in the pitch levels and movements in the pretonic segment too. For instance, a high level pretonic before a fall conveys a sense of insistence, but a low level pretonic before a fall suggests a highlighting of the focus (Tench, 1996) by downplaying given information. I now recognize that this low level pretonic before a fall (and a high level tonic before a rise) actually signals what is given information in cases of narrow focus. Thus 22 can only mean that reference to first visits to any country is already given:

22 ___ this is my first visit to India

Here, there is a narrow focus on *India*, which happens to have the tonic in its neutral position. The difference between 9 and 22 is in the pitch of the pretonic; 9 if it represents broad focus, i.e. all the information is new, would have a pretonic pitched

at roughly mid level, whereas 22 with its lower than 'neutral' pretonic pitch indicates that the information it covers is given.

The difference between 9 and 23 can be illustrated too:

23 this is my first visit to India

where the higher than 'neutral' pretonic pitch conveys a sense of insistence in addition to the status of the information as major.

This leads me on to yet two more cases of semogenesis involving intonation. The first case involves both the low level pretonic pitch and a mid-pitched level tone; there is a modest jump up in the pitch of the voice from the end of the low pretonic to the beginning of the mid level tone. The pattern



occurs in cases of routine listing, as in 24

24 _ he's been to -Canada | _ and the US-A | _ he's been to Singa-pore |
 _ and . Au-stralia | ...

Listing is usually indicated by a rise, as a piece of information that is incomplete; the final item in the list is then signalled by a fall. In 24, the idea of listing is indicated by the rise in the pitch between the pretonic and the tonic. Routineness is conveyed by the level tone. The low level pretonic contributes the sense of "same, old information". Thus, a relatively new intonation pattern has been created from meanings related to intonation forms associated with other patterns. This has been described in greater detail in Tench (1997). The pattern is now well established in British (including RP), American, and Australian accents and in the speech of many who use English as a second language.

The other relatively new pattern is known as the high rising tone (or terminal). It occurs with declarative clauses but is distinguished from the pattern of 16 by a general shift up in pitch of the whole unit relative to the pitch of the preceding units. This shift up in pitch is clearly detectable in the acoustic displays supplied by Bradford (1997), but appears to be ignored in all previous descriptions of this particular pattern. The effect of the shift up in pitch is to topicalize the information (compare the effect of a high onset syllable in phonological paragraphing, above). This adds an extra dimension to the meaning of query associated with 16; it suggests that not only is the speaker providing new information but also checks (or 'queries') the addressee's comprehension of the significance of that information. In 25

25 she lives in \Cardiff | | in /Wales

the speaker uses this pattern in the second intonation unit. The shift up in pitch is transcribed as | , the rising tone conventionally as / , and it will be noticed that the clause type is declarative. So, in addition to supplying the information *she lives in Cardiff*, the speaker supplies further information (that Cardiff is *in Wales*) but at the same time checks the addressee's comprehension, as if to ask a new (shift up in pitch) question (rising tone): *do you know where Wales is? or do you realize the significance of the reference to Wales?* It is a very clever device for simultaneously stating information and checking comprehension by introducing a new question. As can be seen, this new pattern makes creative use of meanings associated with forms in other intonation patterns. It, too, has been widely reported in North America, Australis, New Zealand and Britain. I believe it originally arose amongst speakers of English as a second language and was acquired successively in working class and (more recently) in the younger generation of middle class groups.

Finally, the sixth role of intonation; in English, intonation distinguishes between lexicogrammatical patterns which happen to have identical strings of wording. For instance, in the string *she dressed and fed the baby* (Halliday, 1967), *dressed* is either intransitive, or transitive (along with *fed*) with *the baby* as complement. This ambiguity is resolved however in the spoken form:

26a she \dressed | and fed the \baby

(*dressed* = intransitive, ie. “she dressed herself”)

26b she dressed and fed the \baby

(*dressed* = transitive, ie. “as well as feeding, she dressed the baby”)

I conceded earlier that it is possible simply to classify such a case as the speaker’s organization of information (ie. the third function). 26a has to be interpreted as two distinct events; 26b can well be interpreted as a single event (eg. getting the baby ready before going out). Moreover, 26a bears neutral tonality in that each clause is accompanied by a separate intonation unit; 26b has marked tonality by having two clauses within a single unit.

However, from the point of view of applied linguistics, it is worth noting a separate role for this kind of disambiguation. This particular role is peculiar to given languages, and that is why I needed to specify *in English* at the head of this section. Intonation plays a similar role in German (Tench, 1996a), although not in the equivalent case of 26 a/b.

It is highly likely that other languages will not allow identical strings of wording because of surface grammatical differences, and so any contributory role of intonation

will not be noteworthy. In English - and in German - on the other hand, there are quite a number of cases as the following illustrations show.

27a she came to \hear about it

(single, but complex verb group, i.e. “she heard, by chance, about it”)

27b she \came | to \hear about it

(two clauses; the second, non-finite clause indicates purpose)

28a she left me to get on with the \job

(single, but complex verb group, i.e. “I was left to get on with the job”)

28b she \left me | to get on with the \job

(two clauses, as 27b; implies that *she* did the job)

29a they've left the \others

(*the others* = complement of *left*)

29b they've \left | the /others

(*the others* = gloss on *they*)

30a you \know he's Welsh

(report structure; second clause embedded)

30b you /know | he's \Welsh

(two clauses; the first is a comment clause; the second is major information)

31a my brother who lives a/broad | ...

(relative defining clause indicating which of two or more brothers)

31b my /sister | who lives at /home | ...

(relative non-defining clause simply adding further information)

32a she spoke to me \honestly

(*honestly* = circumstance of manner)

32b she \spoke to me | \honestly

(*honestly* = sentence adjunct, commenting on the validity of the preceding clause)

In all these cases, a change of tonality indicates the difference in syntax. In the following cases, changes in tone and tonicity are also involved.

33a he didn't come because of the \money

(negative domain = not *because of the money*; implies that he did come)

33b he didn't \come | because of the \money

(negative domain = not *come*: implies that he did not come)

34a it's the \baker Mr Jones (or: it's the \baker | Mr /Jones)

(*Mr Jones* = vocative)

34b it's the \baker | Mr \Jones

(*Mr Jones* = apposition)

35a I want some /green | /white | and \orange flags

(list, ie. three different kinds of flag)

35b I want some green white and \orange flags

(adjective sequence, ie. one kind of flag with three colours)

36a I \asked myself

(*myself* = reflexive pronoun)

36b I asked my \self

(*myself* = emphatic pronoun, ie. "I did the asking")

Halliday (1967) and Tench (1996) furnish other examples. A contrastive analysis as Tench's (1996a) between English and German in this sixth role of intonation could yield many valuable insights for teachers.

I have now completed my survey of the roles of intonation in discourse and have demonstrated the claim that intonation is the means by which grammar is pronounced (and, for that matter, for genres and topics too). This classification has one other interesting feature, which is worth drawing attention to: each role or function is associated with a particular feature, or features, of the total intonational phenomenon:

- 1 the organization of information and
- 2 the disambiguation of syntactic “minimal pairs” involves tonality (units of information) and tonicity (focus of information)
- 3 the communication of speech acts involves tone (dominance/deference)
- 4 the expression of attitude involves secondary tones (variations)
- 5 the indication of topics involves paratones (phonological paragraphing)
- 6 the identification of genres involves prosodic composition (including intonation)

Such a neat distribution of the intonational resources is most satisfying intellectually and suggests a particular merit of the model of intonation that I have presented.

References

- Bradford, B (1997) ‘Upspeak in British English’. *English Today* 13/3: 29-36
- Brazil, D. & Coulthard, M. (1979) *Exchange Structure*. English Language Research. University of Birmingham.
- Brown, G., Currie, K & Kenworthy, J. (1980) *Questions of Intonation*. London; Croom Helm.
- Brown, G. & Yule G. (1983) *Discourse Analysis*. Cambridge: CUP.
- Couper-Kuhlen, E. (1986) *An Introduction to English Prosody*. London: Edward Arnold.
- Crystal, D. (1969a) *Prosodic Systems and Intonation in English*. Cambridge: CUP.
- Crystal, D. (1969b) Review of Halliday (1967), *Language*, 45: 378-94.

- Crystal, D. (1997) *The Cambridge Encyclopedia of Language*. 2nd ed. Cambridge: CUP.
- Crystal, D. & Davy, D. (1969) *Investigating English Style*. London: Longman.
- Crystal, D. & Davy, D. (1975) *Advanced Conversational English*. London: Longman.
- Fawcett, R.P. (1980) *Cognitive Linguistics and Social Interaction*. Heidelberg: Julius Gross e Exeter University
- Halliday, M.A.K. (1967) *Intonation and Grammar in British English*. The Hague: Mouton.
- Halliday, M.A.K. (1970) *A Course in Spoken English: Intonation*. London: OUP.
- Johns-Lewis, C. (1986) 'Prosodic differentiation of discourse modes', in Johns-Lewis, C.(ed) *Intonation in Discourse*. London: Croom Helm.
- Knowles, G. (1987) *Patterns of Spoken English*. London: Longman.
- Leech, G. & Svartvik, J. (1994) *A Communicative Grammar of English*, 2nd ed. London: Longman.
- Pike, K.L. (1945) *The Intonation of American English*. Ann Arbor: University of Michigan Press.
- Pike, K.L. (1967) *Language in Relation to a Unified Theory of the Structure of Human Behaviour*, 2nd ed. The Hague: Mouton.
- Tench, P. (1990) *The Roles of Intonation in English Discourse*. Frankfurt a M: Peter Lang.
- Tench, P. (1996) *The Intonation Systems of English*. London: Cassell Academic.
- Tench, P. (1996a) 'Intonation and the differentiation of syntactic patterns in English and German'. *International Journal of Applied Linguistics* 6/2: 223-256.
- Tench, P. (1997) 'The fall and rise of the level tone of English'. *Functions of Language* 4/1: 1-22