Intonation and Categories of Meaning

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This paper is a personal review of the functions of intonation in the grammar and discourse of English speakers. It offers an extension to Halliday's classic statement (Halliday 1967, 1970) and also reflects recent innovations in intonation that have been widely reported. It also takes into account Fawcett's categories of meaning, or 'functional components' (Fawcett 1980), which are found useful as a basis for displaying six separately identifiable functions that intonation performs in English: the identification of spoken genres, phonological paragraphing, the organization of information, communicative (discourse) functions, the expression of attitude and the disambiguation of identically worded clauses. It concludes with a general statement about the neat association between the categories themselves and the subsystems of intonation.

Those familiar with Halliday's classic statement will find the following additional concepts: genre phonology, phonological paragraph, status of information, phonological dominance and deference, a mid level tone, and a raised rising tone.

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[1] A slightly revised version of a plenary given at the Systemic-functional Congress … India

Intonation and Categories of Meaning

1 Introduction

Intonation is an integral part of spoken language, because it conveys meaning. Thus any theory of spoken discourse that fails to take intonation into account must be regarded as deficient, and any transcription of discourse that fails to record at least salient items of intonation must be deemed inadequate or even misleading. We cannot speak without intonation. (Even a deliberate attempt to avoid intonation choices by maintaining a monotone is in fact a choice, which listeners will interpret!)

Intonation is primarily the linguistic use of pitch in discourse; loudness and length are also involved in providing the basic elements of prominence, but it is pitch that is the most distinctive element in the full set of intonation systems. Intonation is distinguished from lexical tone in tone languages; lexical tone can be defined as the linguistic use of pitch in words and contributes directly to the distinctive acoustic image ('signifiant') of each word in the language, whereas intonation relates to discourse, and thus to whole messages. Intonation accompanies the grammar of spoken clauses, whether a single clause constitutes the whole of a discourse, or only a single move in a larger discourse.

Many would argue that the significance of intonation in grammar was one of the major contributions that Halliday made to linguistic theory in the early days of 'scale and category' theory (Halliday 1961). He also contributed what has now become standard practice in intonation theory and analysis with the distinction between *tonality* (the segmentation of spoken discourse into discrete units of intonation), *tonicity* (the location of the most prominent element within each unit) and

tone (the pitch level and/or movement associated with prominent elements); although others may use alternative terminology, this basic, regular, distinction was first clearly propounded by Halliday.

Allow me to briefly illustrate these two contributions. Take, for instance, Halliday's introduction to the transitivity system with his example of a commotion in the air up above us (see Halliday 1985: 101), 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 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).

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 (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 (tonicity) represents the speaker's decision on the focus of each piece of information. The third sub-system, 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 three roles of intonation - in the semantic dimension of the organization of information in discourse, its close involvement with the lexico-grammar, and 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 and catogories of meaning, 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 'rank') 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). Fawcett divided up the three metafunctions (ideational, interpersonal, textual) as ten separately identifiable categories of meaning, as follows: experiential, logical relationships, negativity; interactional, affective, modality; thematic, informational; discourse orgaizational and metalingual (Fawcett 1980: 58). Not all of them are relevant for an explication of the functions of intonation, but this finer set of distinctions gave me clues to discovering the catogories that **are** relevant for intonation. I eventually 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, though by no means identical, is to be found in Brown, Currie & Kenworthy (1980), Couper-Kuhlen (1986), and Crystal (1997)).

2 Identification of spoken genres

The first function of intonation I want to describe is related to a discourse as a whole. It was not acnowledged by either Halliday or Fawcett, but it was by Pike. Different genres have a different 'sound'. 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 rhythmicality, 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 (Tench 1990: 504).

(2)   our * -<u>father</u>*   (*trem)
         - which art in -<u>heaven</u>
         - hallowed be thy *-<u>name</u>*   (*trem)
         - thy kingdom -<u>come</u>
         - thy will be -<u>done</u>
         . in earth .   as it is in -<u>heaven</u>
         - give us this -<u>day</u>
         . our daily -<u>bread</u>
         - and for give us our -<u>tres</u>passes
         - as we for give -<u>them</u>
         . that trespass a gainst -<u>us</u>
         - and lead us not into temp-<u>ta</u>tion
         - but *de liver us* from -<u>evil</u>   (*trem)
         - for thine is the -<u>kingdom</u>
         . the power and the -<u>glory</u>
         - for ever and -<u>ever</u>
         - a\<u>men</u>

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 .). (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.)

    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 (Tench 1990: 505). Exactly the same characteristics prevail.

(3)   al mighty -<u>God</u>
         . and our most merciful -<u>father</u>
         - we thank Thee that we can come to -<u>Thee</u>
         - in that name which is above every other *-<u>name</u>*   (*trem)
         - the * name* of our   Lord and   Saviour   Jesus -<u>Christ</u>
(descend)(*trem)

>   - and as we es pecially re member to-<u>day</u>
>   - the resur rection . of Jesus -<u>Christ</u>
>   - we ask Thee in Thy -<u>mercy</u>
>   - that Thy presence . will be -<u>with</u> us
>   - and with all who will share . this -<u>serv</u>ice   (descend)
>   . with us as -<u>well</u>
>   - for this we -<u>ask</u>   (ascend)

Our cultural conception of this particular kind of spoken discourse includes this peculiar, distinctive, prosodic composition.

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

3 Phonological paragraphing

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.

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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).

4 Organization of information

Intonation can thus be readily seen as the potential pronunciation of genres and topics. We now turn to its roles at the level of the clause. I see at least three distinctive roles for intonation in relation to clause-level grammar, involving the informational, interactional and thematic categories of meaning. Firstly, intonation realizes the speaker's perception of the organization of their information both experientially 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, four at the clause level of grammar and two above it.

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 in order to represent a situation like (1) and we use intonation units to convey that very 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 \<u>that</u>

          B : some birds are flying over\<u>head</u>

          C : they're actually \<u>figh</u>ting 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) \<u>yes</u>

      (6) \<u>Hy</u>derabad is where we are meeting

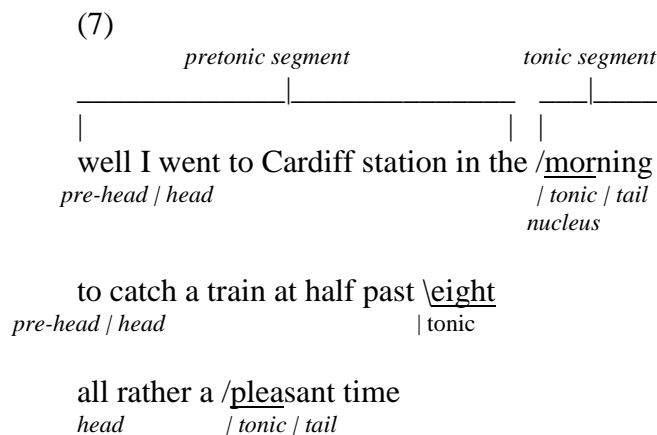The pretonic segments of (4) are:

          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:

(7)
```
              pretonic segment              tonic segment
_____|_____   ____|_____
|                                | |          |
well I went to Cardiff station in the /morning
pre-head | head                          | tonic | tail
                                          nucleus
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```
to catch a train at half past \eight
pre-head | head                       | tonic
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all rather a /pleasant time
head          | tonic | tail
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<div align="right">(from Tench (1990: 489))</div>

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 experiential function, tonicity at least one aspect of the textual function. 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\head | at the /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 \India

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

(10)   this is my first visit to /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 Halliday & Matthiessen (1999) have called the 'dissociation of associated pairs', or 'de-construal', 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 relationship between a particular form and a particular meaning is an "associated pair". Similarly

the relationship 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 form, 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-grammatical wording, 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 ∨<u>In</u>dia

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)   ∨<u>this</u> | is my first visit to \<u>In</u>dia

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 \In̲dia)

(final) rise   : / = minor information   (this is my first visit to \India | this /ye̲ar)

(non-final) rise   : / = incomplete information (this is my first visit to /In̲dia | ....)

(final) fall-rise   : ∨ = implication   (this is my first visit to ∨In̲dia)

(non-final) fall-rise : ∨ = highlighting of theme   (∨thi̲s | is my first visit to \In̲dia)

But this is not the whole story of intonation at the level of the clause.

5 Communicative functions

A fourth role of intonation relates the clause to the interpersonal metafunction, Fawcett's interactional component. 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 /In̲dia

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 an 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 \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 ar\rive

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 *this is your fisrt visit to India.*

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 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 \Underline{In}dia

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 (1970:27) 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 (and 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 speakerknows 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 \underline{\door}

But

(19)   shut the /\underline{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 /\underline{door} will you

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

(20)   \underline{\thanks}

simply expresses the speaker's feeling, but

(21)   /\underline{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).

6 Expression of attitude

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. This is often also designated the *paralinguistic* function of intonation. I do not intend to go

into much detail here as the account of intonation's role in attitudinal, paralinguistic, 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. Similarly, a fall from a higher than normal pitch level suggests strength of feeling, and a fall from a lower than normal pitch level suggests mildness.

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 contribution 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.

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 two recent cases of innovations in 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, 2003). 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, but see Tench (2003: 218f). The effect of the shift up in pitch is to topicalize the information (compare the effect of a high onset syllable in phonological paragraphing). 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 ⊃, and 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, Australia, 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 (Tench 2003).

7 Disambiguation of identically worded clauses in English

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 (26a/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, ie. "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 \underline{\text{\know}} he's Welsh

(report structure; second clause embedded)

(30b)   you /\underline{know} | he's \\\underline{Welsh}

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

information)

(31a)   my brother who lives a/\underline{broad} | ...

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

(31b)   my /\underline{sister} | who lives at /\underline{home} | ...

(relative non-defining clause simply adding further information)

(32a)   she spoke to me \\\underline{hon}estly

(*honestly* = circumstance of manner)

(32b)   she \\\underline{spoke} to me | \\\underline{hon}estly

(*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 \\/\underline{mon}ey

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

come)

(33b)   he didn't \\\underline{come} | because of the \\\underline{mon}ey

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

(34a)   it's the \\\underline{ba}ker Mr Jones (or: it's the \\\underline{ba}ker | Mr /\underline{Jones})

(*Mr Jones* = vocative)

(34b)   it's the \\\underline{ba}ker | Mr \\\underline{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.

8 Final note

This classification of the categories of intonational meaning in English discourse has one other interesting feature, which is worth drawing attention to: each category or function is associated with a particular subsystem, or subsystems, of the total intonational system for the language:

1   the organization of information and

2   the disambiguation of syntactic "minimal pairs" involves **tonality** (units of information), **tonicity** (focus of information) and **tone** (status of information)

3   the communication of speech acts involves **tone** (dominance/deference)

4   the expression of attitude involves **secondary tone** (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.

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