PROCESSES OF SEMOGENESIS IN ENGLISH INTONATION

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Abstract

Semogenesis, the creation of meaning, has been promoted by Halliday & Matthiessen (1999) as a 'guiding principle' in their presentation of a systemic functional theory of language – that language has within itself the resources by which people can create new meanings. Halliday & Matthiessen illustrated three processes of semogenesis and used an example of English intonation to illustrate one of the processes, deconstruction. This paper proposes two other processes, blending and reconstitution, to account for three other developments in English intonation: the falling-rising tone, the so-called high rising terminal/tone (HRT) and the mid level tone for routine listing.

1 Semogenesis: an introduction

Semogenesis is the term that Halliday & Matthiessen (1999:17) created to refer to the creation of meaning. They suggested that there were at least three dimensions or time frames to such a process:

i)   a phylogenetic dimension to encompass evolution within language and within particular languages;

ii)   an ontogenetic dimension to encompass linguistic development within an individual, ie increasing the individual's linguistic repertoire or store, and

iii)   a logogenetic dimension to encompass the unfolding of meaning in actual discourse.

Meanings are continually created, transmitted, recreated, extended and changed (1999: 18) by processes that operate in each dimension, or time frame. Thus, in general terms, our human capacity to use language to convert our experience into an act of communication enables me as an individual to communicate what I mean in a particular language at a particular point of time. What I am writing now, in this very instance, has meaning - at least, I as the writer think it has - which represents the logogenetic dimension; it expresses the creation of meaning, the unfolding of fresh meaning in actual discourse. When I as an individual acquire a new unit of language, that represents the ontogenetic dimension, and when there is something new in the world or when there is a new configuration of existing factors enabling people to say something different and new, that is the phylogenetic dimension.

Halliday & Matthiessen (1999: 18-22) then illustrate three types of process whereby meaning potential can be expanded. A new linguistic sign can be produced; we will call this process 'innovation'; or a linguistic sign can be split for semantic delicacy; we will call this process 'differentiation'; and a sign can be 'deconstructed', that is the meaning and its realization in wording can be detached from each other and re-attached to other wordings and meanings.

Let us illustrate each of these processes: first, innovation. Ontogenetically, I might acquire a sign that was previously unknown to me. For example, when I was given a present of 'mercerized' cotton socks, the sign *mercerized* was new to me. I had to consult a dictionary to discover what it meant. And once I had acquired that sign, I could then employ it freely and talk about cotton that was 'unmercerized' and a process of 'mercerization' of cotton, and whether any kind of cotton was mercerizable, etc. But there must have been a time when the word *mercerize* entered the language, once John Mercer (1791-1866) had perfected the techniques concerned; thus, phylogenetically, our capacity for meaning was expanded because there was then a new process and product in the world for us to understand and talk about. And when I told people about my new discovery, the unfolding of my message illustrated the logogenetic time frame.

The second process for creating new meaning is differentiation. In 16th century English, *temptation* referred to all kinds of testing; thus *lead us not into temptation* was a plea to spare us from any form of testing at all. But since the 18th century, a differentiaton has been established between testing of a moral kind involving the conscience (=21st century *temptation*) and testing of other, non-moral, kinds, eg physical, mental, pedagogical, etc. Thus, the acquisition and use

of the differentiated forms of *temptation, testing* and *trial* can be worked out in all three time frames.

The third process for creating new meaning is deconstruction. The two parts of a sign - meaning, and its realization in wording - can be identified separately. Halliday & Matthiessen (1999: 21) illustrate this process initially by the separation of ʹnounʹ as a realization of ʹparticipantʹ; see Figure 1. Participants are conventionally realized as nouns; this would be an unmarked relationship.
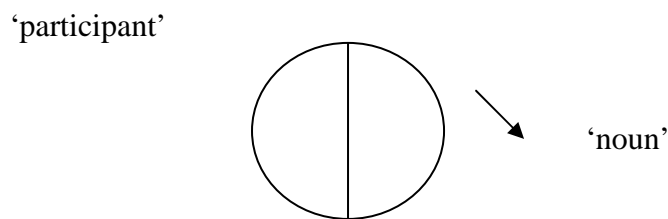
'participant'

'noun'

Figure 1: 'participant' realized as 'noun'

But because these two parts of the sign can be identified separately, we can detach *noun* from participant and create a new relationship between *noun* and, say, *process*, and we can create a new relationship between *participant* and, say, *process*; see Figures 2 and 3. These newly created relationships are marked in that they are less usual and require additional mental effort in interpretation.
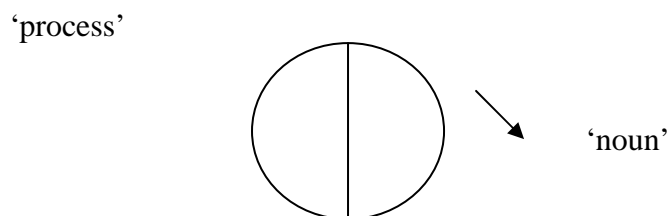
'process'

'noun'

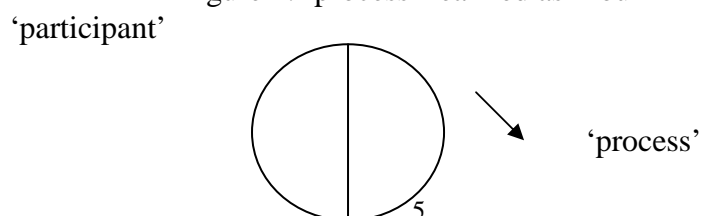Figure 2: 'process' realized as 'noun'

'participant'

'process'

5

Figure 3: 'participant' realized as 'process'

for example:

participant as noun (unmarked)   :   (you should read this) **book**

process as noun (marked)   :   (you should do some) **reading**

participant as process (marked)   :   **reading** (is good for you)

This process of deconstruction was also illustrated with an example from English intonation (1999: 22). The meaning ꞌquestionꞋ is usually realized by the association of two features: (polar) interrogative mood and rising tone; see Figure 4. However, we can separate these features and create alternative associations: (polar) interrogative mood with falling tone (Figure 5), and declarative mood with rising tone (Figure 6). This expands our meaning of ꞌquestionꞋ. The (original, unmarked) association and the two ꞌnewꞋ associations allow us to think of ꞌquestionsꞋ in three ways:
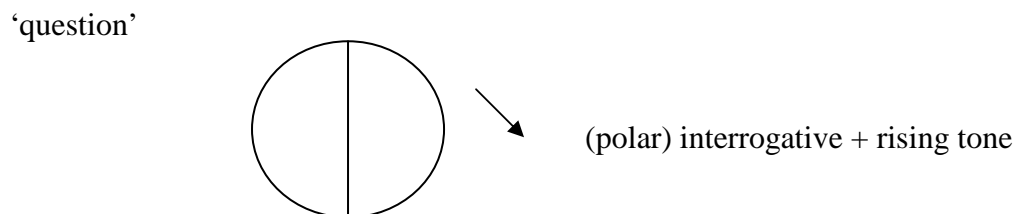
'question'

(polar) interrogative + rising tone

Figure 4: 'question' realized as (polar) interrogative + rising tone

The unmarked association realizes a 'plain' question, in which the speaker seeks information from the addressee, deferring to that person's presumed superior knowledge. The first marked variant

'question'

(polar) interrogative + falling tone
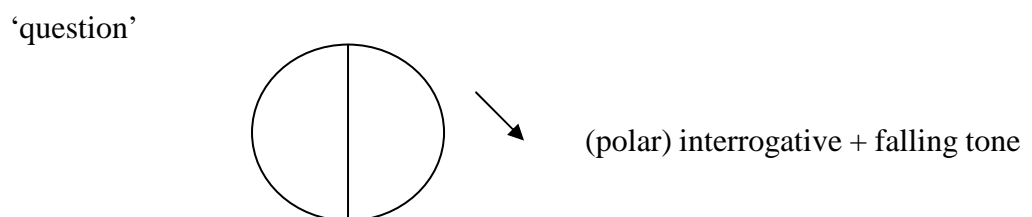
Figure 5: 'question' realized as (polar) interrogative + falling tone

realizes a ꞌstrongꞌ question (Halliday 1970:27) indicating forcefulness or impatience; or it realizes the final alternative question as in

(1)   is she / <u>stopp</u>ing │ or is she \ <u>com</u>ing

This variant also realizes ꞌlead-insꞌ, as in

(2)   have you heard what \ <u>happ</u>ened last night

in which the speaker indicates that they know (Tench 1996:95-6). In all cases, power is exerted by the speaker either in terms of authority or knowledge or deciding what alternatives are permitted.

The second marked variant

'question'

declarative + rising tone

Figure 6: 'question' realized as declarative + rising tone

realizes a ꞌstatement-questionꞌ (Halliday 1970:27) glossed typically as *Is that what you are saying*. It ꞌquestionsꞌ the validity of a statement that appears to be contrary to evidence or expectation. It very typically queries a statement made by another interlocutor, eg

(3)   (A: I think she ꞌs \ <u>com</u>ing)

         B: She ꞌs / <u>com</u>ing

All three question possibilities can thus be illustrated:

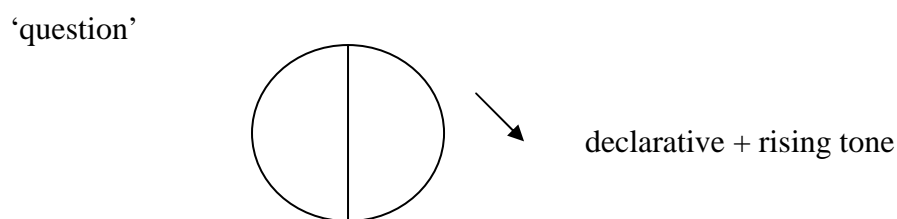(polar) interrogative + rising tone (unmarked) : do you live in / <u>Li</u>verpool

(polar) interrogative + falling tone (marked) : do you live in \ <u>Li</u>verpool

declarative + rising tone (marked) : you live in / <u>Li</u>verpool

Thus, whereas there was presumably a time when only the unmarked association existed, the semogenetic process of deconstruction - or, in this case, the dissociation of associated features (Halliday & Matthiessen 1999: 21) - has enabled people to create two other kinds of question - ontogenetically, phylogenetically and logogenetically.

2 The semogenesis of the fall-rise tone

There was also, presumably, a time when statements with major information were only expressed through a declarative clause associated with a falling tone, but that is no longer the case in current Standard English.

In the conventional, unmarked, association (see Figure 7):

'statement'
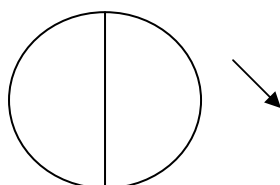
declarative + falling tone

Figure 7: 'statement' realized as declarative + falling tone

the speaker knows and tells, with the piece of information being treated as independent of any other for its interpretation, ie major information. But statements can also be presented as incomplete, or minor, information and are then conventionally realized as declarative associated with a rising tone (Armstrong & Ward, 1931:22, 27; Pike 1945: 51-59; Kingdon 1958: 73, 79-80, 221; Halliday 1970: 30-1, 38; Crystal 1975: 35; Tench 1996:80-3; Cruttenden 1997: 94-6). The rise in incomplete information suggests that it has to be interpreted in the context of another piece of information judged to be major, eg

(4)   They live in \ <u>L</u>iverpool

(5)   They live in / <u>L</u>iverpool │ (and \ <u>lik</u>e it there)

Minor information indicates a lower status of information prominence, often even given information, compared to the major information it is dependent on:

(6)   (You get to see good \ <u>foo</u>tball) │ if you live in / <u>L</u>iverpool

The fall-rise possibility seems to have been produced by a different, fourth, type of semogenetic process, that of blending two items, the falling and the rising tones. The falling-rising tone signals, at the same time, a statement of major information – the contribution of the fall – on the one hand, plus a statement of an additional, minor, information – the contribution of the rise – on the other.

(7)   He lives in \/ <u>L</u>iverpool

implies major information (that he does live in Liverpool) but also an additional message glossed possibly as "there is something else to be understood as well". The additional, unverbalized, message has to be construed from the context, and since there is any number of contexts, there would be any number of possible glosses. Here are just two: if the talk had been about pleasant cities to live in, the unspoken, unverbalized, additional meaning would relate to the degree of pleasantness associated with Liverpool. If the talk had been about opportunities to watch good football, the gloss would relate to that.

(7a)   He lives in $\lor$ <u>Liver</u>pool (so he would be happy enough)

(7b)   He lives in $\lor$ <u>Liver</u>pool (so he's got two good football teams to watch)

Because the unfolding of meaning in an actual discourse takes place in an actual context, the speaker can usually depend reasonably successfully on the appropriate implied, but unspoken, message being interpreted correctly.

The above explanation – or speculation – on the origin of the meaning of the falling-rising tone seems preferable to Halliday's (1970:23) relating it as he does to the actions of 'polarity known' and 'polarity unknown', associated with statements and (polar) interrogatives. There is no questioning involved in the 'new' meaning of what was once the 'new' falling-rising tone, but rather an implication of an additional message over and above the one that is verbalized. Indeed, this explanation ties in with the general kind of gloss that Halliday gave it as an additional meaning of "it may seem as though all is clear, but, in fact, more is involved (Halliday 1970:23) typically expressing reservation, contrast or a personal opinion offered for consideration (p.26). In other words, the semogenesis of the falling-rising tone is based not so much on polarity known and unknown, but on a blend of major and minor (or incomplete) information status.

Tench (1996:83-6) adds the notion of 'theme highlighting' in those cases where the falling-rising tone precedes a falling tone, eg

(8)   ∨ <u>he</u> │ lives in \ <u>Liverpool</u>

Such 'theme highlighting' often suggests contrast, or personal opinion, but it can simply be a way of drawing attention to the theme – and it does not matter whether the theme is neutral, as in the above example, or marked, as in the following:

(9)   in ∨ <u>Liverpool</u> │ you get to see \ <u>goo</u>d football

The question may then arise: if the falling-rising tone is the product of a blending process in semogenesis, is that also the case of the rising-falling tone?

In my opinion, it is not. It seems to me to be, rather, evidence of an exaggeration of the 'iconic' nature of paralanguage. The higher the starting point of the falling tone, the stronger the statement attitudinally; and the higher the ending point of the rising tone, the stronger the sense of questioning, indicating something like a challenge or great surprise (Tench 1996: 126).

The rising element of the rising-falling tone does not appear to contribute a separate kind of meaning as it does in the falling-rising tone; it seems rather to exaggerate, or reinforce, the sense of reaching the high point for a high fall. Very typically, there is a discernible 'jump' in pitch from the end of the pretonic segment to the beginning of the tonic with a high fall (Figure 8)

(in / <u>L</u>iverpool) │ you can see \ <u>good</u> football
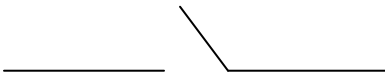
Figure 8: illustrating a discernible 'jump' in pitch between pretonic and tonic segments

or they may be a slight vocalized climb (Figure 9)

Figure 9: illustrating a slight vocalized climb

which might be reinforced as a rising-falling tone (Figure 10)

Figure 10: illustrating reinforcement as a falling-rising tone

To substantiate this claim, I appeal to Watt (1994: 40): "From the examples of tone 5 (ie rising-falling) and tone 1+ (ie high falling), it is evident that there is a degree of phonetic overlap between the two tone types. Both types contain examples that exhibit more in common phonetically with the other type than with the one to which they are assigned". The acoustic displays in Watt 1994: 124-7, 135-6, 147-150, 153-4 verify this claim. Although Watt claims that the initial rise is not a gradient option, it seems to me that this is precisely what it is, but an option nevertheless; its meaning is a reinforcement, or intensification, of the 'key' of the high fall (Tench 1991; 1996: 127-8). The development of the rising-falling tone is an extension, phonetically and semantically (and therefore, also phonologically), and not a blend of two tones - but the development of the falling-rising tone is.

3 The semogenesis of the high rising terminal/tone

The semogenetic process of blending is also responsible for the development of the so-called high rising terminal (HRT). It has been the subject of much investigation and debate since Ching (1982) and Guy & Vonwiller (1984), who describe the development of this intonational pattern in USA and Australia respectively. It has been reported in New Zealand (Allen 1990; Britain 1992; Britain & Newman 1992), Canada (James et al 1988; Watt 1994) and England (Bradford 1996, 1997). It was also reported by Coupland (1988) in Wales, but not as HRT.

Typically, this intonation pattern accompanies declaratives; its function is recognized widely as being a means by which a speaker seeks to verify the addressee's comprehension of the information as the speaker gives it. In other words, the speaker is doing two things at the same time: giving information and checking on understanding.

It should be clear immediately that the function of this pattern differs from the function of the rising tone accompanying declaratives discussed earlier as question type 3. The function of the latter is the 'statement-question', by which a speaker questions the validity of a statement that appears to be contrary to evidence or expectation. But there are two other pertinent factors in the 'statement-question'. The first is the information is usually all given; indeed it might be an exact copy of wording already used:

(10)   (A: I've never been to Liverpool before)

         B: / <u>What</u> │ you've never been to / <u>Li</u>verpool before

The second is that it typically occurs as a response to what another interlocutor has said, as in the above example.

The HRT is different on all three accounts. Its function is to provide information and simultaneously check the addressee's comprehension; the information is new; and transactionally, it is not a response, but part of the ongoing discourse.

The difference between the two is based on phonetics as well as semantics. But the difference between the two has been confused as a consequence of terminological ambiguity, for both patterns have been identified by different linguists as 'high rising'. Halliday described the rising tone with declaratives ('statement-questions') as 'high rising' to differentiate it from a low rising tone (in his labelling, the difference between Tone 2 and Tone 3). Perhaps, an alternative pair of terms for that distinction would have been more appropriate: 'rising high' and 'rising low' (or mid), because the significant difference between the two is the **end** point of the rise (Halliday 1967, 1970). For Guy & Vonwiller (1984), the term 'high rising' may well have served to distinguish it from a rising terminal – at the **starting** point; the (ordinary) rise starts from a low-ish pitch (as both of Halliday's tones do), whereas the high rise starts from a higher pitch. Maybe a more appropriate term might have 'raised rising'. This difference in the relative starting point of the rise is not stated explicitly in the literature on HRT, but it is in fact the crucial difference between the two patterns.

Because of the very different functions of the forms, interlocutors will respond to them in quite distinct ways – that is, when they are accustomed to the new pattern – according to expected norms of conversational management and negotiation. But the phonetic clue is indicative; the different meanings triggered by this clue therefore establish it as phonologically significant.

The (ordinary) rising high tone starts from a low-ish pitch. Again, I am indebted to Watt (1994) for confirmation of this through his extensive array of acoustic displays. His Figure 75 (1994: 137), for instance, displays, at the top, a digitalized waveform; secondly, an energy calculation based on the analysis of the intensity, in terms of the amplitude of the waveform; thirdly, a pitch analysis of the fundamental frequency of segments of the waveform – in this case, the vertical bars indicate the tonic segments of the two units; and fourthly, a Hallidayan transcription of the intonation. In this particular instance, it will be seen how the rise that begins on *engine* begins at a relatively low level in the pitch spectrum and rises high; and secondly, that there is a step down in pitch on completion of that rise in order to establish a relatively lower pitch in order to effect a rising tone in the tag in the following unit. The relatively low starting point is a critical feature of this rising tone as is shown in other acoustic displays for the 'rising high' tone in other instances with declaratives (1994: 136-7) and polar interrogatives (1994: 130-3). It is also a critical feature in the rising low/mid tone (Halliday's Tone 3); see acoustic displays (1994: 137-40).

*(**Figure 11 about here**)*

Figure 11: Watt's Figures 75-78, illustrating the relatively low starting point of the (ordinary) high rise

The (new) 'raised rising' tone starts from a high-ish pitch. Watt's Figures 9-12 (1994: 100-1) display this new tone from a corpus of Educated Standard Toronto English. Unfortunately, we do not obtain statistics on its frequency in the corpus, but these displays clearly indicate its existence. Watt's Figures 9 and 11 show the 'raised rising' tone accompanying a tag, *eh*, and *right* which fulfils the function of checking the addressee's comprehension or appreciation of the significance of the foregoing information. It should be observed that there is *no* step down in pitch from the preceding pretonic, as there was in (Watt's) Figure 75 above.

Figure 12 about here

Figure 12; Watt's Figures 9-12, illustrating the relatively high starting point of the 'raised' high rise (with tonic syllables underlined)

Watt's Figures 10 and 12 show the same tone in non-tagged clauses. The 'raised rising' tone actually accompanies the declarative clause in Watt's Figure 10; it should again be observed that the rise starts from a relatively high point in the spectrum and that there is no drop in pitch to accommodate a low starting point if an ordinary rising high tone was intended. In other words, the checking function is being performed simultaneously with the statement; Watt glosses the checking function in this case as *Can you imagine this?* Watt's Figure 12 contains a sequence of three 'raised raising' tones. The tonics are indicated by underlining: *guys, smoke alarm tests, seventies*; notice again that the rise begins from the same pitch level as the pretonic without a discernible drop beforehand, unlike the starting point in Watt's Figures 75 & 76 with a discernible drop, and with Watt's Figures 77 & 78 with a relatively low pitch, see Figure 1 above.

This same phenomenon is witnessed in displays provided by Britain & Newman (1992) for raised rising tones in New Zealand speech. Of the seven provided, I have chosen just one because it contains not only a sequence of three instances, but one of those instances accompanies a verbalization of the checking function, *know what I mean?* This verbalization was not in actual fact necessary as the raised rising tone on *CDR* fulfils that function, but the speaker chose not only to perform that function, but also to specify it, and then, for good measure to repeat the original performance. In this way, the display illustrates not only the intonation pattern but the verbalization of the function accompanied with the intonation pattern itself. The other displays do not carry an overt verbalization like this, but simply the statement with the raised rising tone to indicate the simultaneous provision of information and the verification of the addressee's comprehension.

Figure 13 about here

Figure 13: Britain & Newman's Figure 6, illustrating the relatively high starting point of the 'raised' high rise

Bradford's display shows the very same feature (Bradford 1997). There is no drop in pitch between the intonation units; in fact, in this case, there is a very noticeable step up in pitch from the fall of *prints* to the head of the following pretonic *like an elephant*; the tonic <u>highway</u> rises from this raised pitch. Bradford calls this pattern 'upspeak' and explains that its use "may be similar in effect to the use of fillers such *Right?* or *You know what I mean?*, which are used by speakers to check that their listeners are keeping abreast of the information flow or are sympathetic to what is being said" (Bradford 1997: 35).

Figure 14 about here

Figure 14; Bradford's Figure 2a, illustrating the relatively high starting point of the 'raised' high rise

But what is the 'semantic' significance of this raised starting point in pitch for the raised rising tone? For this we have to look elsewhere in the intonation system.

Following Lehiste's studies of the phonetic properties of spoken paragraphs (Lehiste 1975, 1980) and similar studies by Brazil (1978, 1985), Brown, Currie & Kenworthy (1980), Yule (1980), Pierrehumbert (1980) and Couper-Kuhlen (1984), it is now generally agreed that new (spoken) paragraphs or turns typically begin at a relatively high pitch level, and gradually descend, intonation unit by intonation unit, through the paragraph or turn. One example, from Couper-Kuhlen (1986:192) must suffice.

Figure 15 about here

Figure 15: Couper-Kuhlen's (1986: 192) figure illustrating high onsets for new paragraphs

The first unit, after the hesitation, starts with a high onset syllable; the following three units each start with lower onsets; the next starts higher and this suggests a new stage (or topic even) in the discourse, and all the following five units start lower. After the next hesitation, the starting point is very high again, the following five units start lower; and the final two units in the display start high again. The relatively high starts indicate the speaker's perception of their staging of their turn; something new in the argument (or narrative, etc) is accorded a higher pitch. (There are other details, including the depth of falls, that help to determine the boundaries of paragraphs and sections within paragraphs, but it is the high start that is the significant feature for present purposes.)

This high start for new paragraphs or turns seems to explain what happens in the raised rising tone. The speaker, while continuing to give new information, at that same time begins a kind of new move within the turn – a move which is no longer just a statement, but a question as well. Normally, a question would be expressed as a separate move, or indeed as a separate turn. But in the case of the raised rising tone, the speaker utilizes a high pitch normally associated with the (high) onset of a new turn *within* an ongoing turn to signal the new, and distinctive, move of providing information and simultaneously checking on the addressee's comprehension. This matches Brazil's description of key in 'pitch sequences' (Brazil 1985:186), but is nevertheless distinctive in that the high pitch does not follow after the normal pattern for the ending of a preceding 'pitch sequence'; it has been 'borrowed' from one function into a new pattern.

At times, this new turn is verbalized separately accompanied by the raised tone as, for example, with *eh? right? know what I mean?* But at other times, the speaker does not verbalize the new 'turn', but relies solely on the raised rising tone. Its meaning can still be glossed as *do you know/understand/appreciate the significance of what I am saying?*

The phonetic and – because of its semantic force – phonological distinction can be shown as Figures 16 and 17:

rising high:

You didn't leave the /<u>en</u>gine running all this time │ / <u>did</u> you

(low start)   (lowered start)
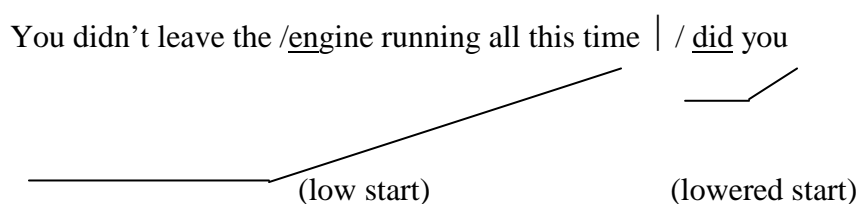
Figure 16: illustrating *rising high*

raised rising:

(there's actually elephant \ <u>prints</u>) |↑ like an elephant / <u>high</u>way

(raised start)
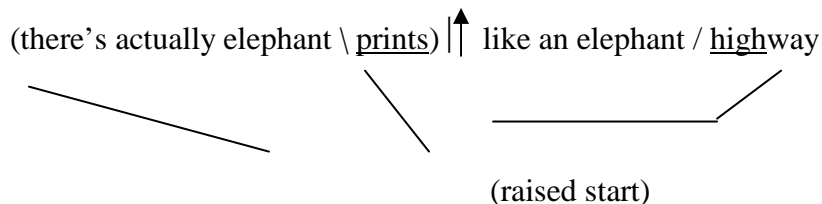
Figure 17: illustrating *raised rising*

The semogenetic process involved in the development of the raised rising tone is a second example of the process I have called blending. What is blended is the rising tone itself for the checking element of understanding (a kind of question) and the raised pitch level for the sense of a new section of the ongoing discourse (a kind of new turn); and this intonational blending accompanies a declarative clause which maintains its function of 'declaring' new information.

Much of the literature on the so-called HRT has concentrated on the *sociolinguistic* review of who amongst the total population of native speakers of English uses this pattern.

Important though that perspective is, my concern in this article is an attempt to account for its *linguistic* origins, its genesis. I would like to add a personal note here. I myself do not use this pattern with declaratives, but I do with the kind of tags already mentioned. I remember being quite puzzled when I first heard it in Cardiff, Wales, in the mid-sixties (see Coupland, 1988), but I soon came to understand its meaning. It is now part of my receptive intonational repertoire, but not part of my productive. As I have said elsewhere, "HRT is a clever and efficient way of doing two things at the same time" (Tench 1997a: 17). Many people seem to be irritated by it (see correspondence in *The Independent*, October 1999) – some people are irritated by *any* linguistic innovation – it is likely to remain in most people's receptive intonation system at least, if not in their productive.

4 The semogenesis of the mid-level tone for routine listing

A fifth type of semogenetic process is involved in another new intonation pattern, a process of reconfiguration, that is a 're-assembling' of the constituent elements of the intonation unit into a sequence hitherto unused. It is different from Halliday & Matthiessen's third semogenetic process, deconstruction, in that deconstruction involves the 're-assembling' of features simultaneously, whereas this fifth type of process involves a 're-assembling' sequentially.

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In order to explain this process, we need to invoke the notion of the 'intonational lexicon' suggested by Liberman (1979) and Ladd (1980) and illustrated in detail in Tench (1990: ch 6; 1996: ch 5). The intonational lexicon is a list of patterns made up of constituents: pretonic segment, or head plus pre-head, and tonic segment, or nucleus plus tail; each constituent can vary by pitch level and movement, and each possibility contributes to the overall meaning of the

intonation pattern. Presentations of these ranges of meaning have been attempted by O'Connor & Arnold (1961/1973), Gimson (1962/1989), Pike (1945), Halliday (1967, 1970), Crystal (1969), Brown (1977/1990), Liberman (1979) and Tench (1990, 1996), who reviewed them all.

In the case of the mid level tone for routine listing, three constituents are noted: a low level head/pretonic; a step up in pitch for the tonic; and mid level pitch for the tonic itself (and tail).

The low level head has a special meaning before a falling tone accompanying a declarative. Pike (1945: 66) suggested that it (in his terms, precontour 4)

> heightens the contrastive pointing of any succeeding falling primary contour by making a relatively large interval between the precontour and the beginning of the primary contour; the greater the interval, the sharper the contrast or pointing and attention.

Tench (1996: 129) wrote in similar terms that the low level head has "the effect of concentrating attention exclusively on the focus of information". A clearer formulation of this meaning would in fact specify that the information accompanied by the low level head (before a falling tone) was being treated as given, as opposed to new (see Tench 1996a: 30-31). We can contrast the low level head with a neutral head in the following way.

In a context where the value of books has been mentioned, a person might agree by saying the remark as Figure 18:

reading is \ <u>good</u> for you

Figure 18: illustrating a mid-level head

in which the head (unmarked/neutral) is mid level. This suggests that the whole intonation unit

contains new information, 'broad focus' as Ladd (1980) called it.

But in a context where the value of reading has been mentioned, perhaps even disputed, a

person might respond with an identically worded remark, but with a low level head instead

(Figure 19):

_ reading is \ good for you
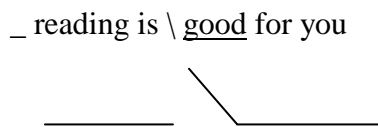
Figure 19: illustrating a low level head

The low level head is the speaker's recognition that *reading* is given information; the only new

information is *good for you*. The focus is no longer 'broad', but 'narrow' (Ladd 1980), ie only

part of the information is new. The low level head is thus in contrast to the unmarked, neutral,

mid level head, and signals the speaker's perception of given rather than new information. (This

is, incidentally, the usual way in which a speaker distinguishes between broad focus – with

neutral tonicity – and narrow focus where the only new item happens to be the final lexical item.)

Secondly, the step up in pitch from a low head to mid pitch for the tonic represents the

kind of rise associated with incomplete information. The normal listing intonation pattern

consists of a series of rising tones accompanying the final accented syllable of each item in the

list apart from the final item which typically is accompanied by a fall. The rising tone in this

context means in effect "the list is not yet complete".

The third constituent of this pattern is the mid level pitch on the tonic segment itself. The mid level pitch is maintained on the tonic syllable and on whatever follows in the tail. A full discussion of the uses and meanings of the mid level tone appears in Tench (1997). The relevant descriptors in this context are: 'pre-coded', ie inventories, ritual commands (see also Brazil 1985: 206) and, perhaps, more importantly, 'routine' (Roach 1983/2000: 158).

The three constituents have been assembled to express a meaning that combines givenness, listing and pre-coding/routineness. This new configuration will not have developed by chance, but in response to a perception of cultural reality. It is a relatively new selection of constituents in sequence within a single intonation unit, and it has established itself as a recognizable pattern now in its own right. It thus now constitutes a new option in the intonation system of English.

Here is an example of its use: in response to the question *What would you do if you won the prize (=£10,000)?*, one person replied: (Cox 2000)

(11) 1   \ <u>right</u>
      7I'd give most of it to / <u>cha</u>rity
      7are we talking a \ <u>lot</u> of money
      7I . most of it to –<u>cha</u>rity
      7_I'd go on –<u>holi</u>day
      7_I'd buy a –<u>car</u>
      7mm I'd probably in \<u>vest</u> some if it
            • • •

The first item in the list (line 2) is accompanied by a rising tone, which suggests, in typical manner, that other items are to follow. That first item is repeated (after a kind of confirmation move, line 3) with a neutral head but a switch to mid level tone for the tonic (line 4). This

appears to be a transition from fresh thinking to routine mode, which is then witnessed in the following units. Line 5 could be displayed as Figure 20:

 _I'd go on –ho<u>li</u>day
                   ‾‾‾‾‾‾‾
    _____

Figure 20: illustrating the low level head

The pattern indicates an acknowledgement by the speaker of an item (and then a second one) that is 'obvious', 'self-evident', the kind of thing that anybody and everybody in their culture would choose to do – thus, 'given', 'routine'.

The speaker then, in line 7, chooses an unmarked falling tone for the next item; this is fresh thinking. In his view of his culture, he believes that other people might not automatically choose this option; it is presented, therefore, not as given and routine.

Tench (1996a, 1997) shows how new this pattern is; whereas it appears to have been unknown in the middle of the 20th century, it emerged, in Britain at least, in the 1960s. Crystal & Davy (1975) found instances of it in recordings that were made at the beginning of 1970s.

Although Halliday (1967, 1970) did not acknowledge this pattern, the difference between normal and routine listing was inadvertently, but tellingly, exemplified in the recordings that were published to accompany Halliday (1970). Page 102 of the book contains exercises designed to train the listener to hear the rising pitches that accompany each list item but the last. The exercise contains the two adjacent items:

(12)   you can have chicken or veal or beef or liver
(13)   Monday, Tuesday, Wednesday, Thursday, Friday, Saturday

Watt (1994) subjected the recordings to acoustic analysis. Watt's Figure 36 (Watt 1994: 45) displays the pitch analysis of the digitalized waveform in the third graph; the rises for *chicken, veal* and *beef* are clearly observable, as is the fall on *liver*. (Incidentally, the declination of the pitch throughout the whole utterance is also clearly displayed.)

Figure 21 about here

Figure 21: Watt's Figure 36 illustrating rise for (ordinary) list items, and Figure 37 illustrating level tones for routine list items

However, although Watt's Figure 37 shows a rise on *Monday*, it also shows level pitches on each succeeding day name until the fall on *Saturday* which signals the completion of the list. Listing the days of the week was thus perceived by the speaker (not Halliday himself incidentally, in this case) as a routine inventory. Knowing that she was expected to produce rising pitches, she did so successfully on the first item, but the perception of a routine list immediately took over. (The low level head/pretonic is, however, not illustrated as each item begins with an accented syllable.)

These recordings must have been made in the late 1960s, so the existence of the pattern at that time is confirmed. Tench (1997) provided evidence that the pattern is widespread in the 1990s. In a 60-minute segment of a news and current affairs programme on BBC radio, the pattern was used by a doctor from East Anglia, a 9 year old boy also from East Anglia, a Member of the House of Lords, a Scottish radio journalist, the lady speaker of the House of Commons, a Labour MP, the chairman of British Airways, a trade union official and the then Chancellor of the Exchequer of the British Government.

The pattern is often used in arguments when the speaker wants to give the impression that they expect any self-respecting interlocutor to fully agree with their statement without raising any objection. It is a favourite tactic used by politicians: for instance, when Kenneth Clark, the said Chancellor of the Exchequer argued his case in an interview, he frequently adopted this practice:

(14)   I've been encouraging the /governor │ to be more /open │ about monetary –policy │ I've stopped the treasury editing the in-flation reports │ the report uh of earlier this –week │ I've started publishing –minutes │ of the discussions we –have │ with the –governor │ in order to re-fute │ …..

In that particular interview, Kenneth Clark used the pattern 53 times in 7 minutes: it constituted 26.5% of all his intonation units in the interview!

I was mistaken when I claimed (Tench 1996:81) that this intonation pattern might possibly be established within a generation; it seems to me to be already well established, not only in standard pronunciations throughout the UK, USA etc, but in non-standard accents too, and in the speech of many who use English as a second language. It ought, therefore, to be treated now as a regular part of the intonation system of English in 'standard' descriptions of English pronunciation.

I was also mistaken when I claimed (Tench 1996: 81) that 'the mid-level tone is often used to indicate misfortune'. The example above of what a person might do with a £10,000 prize obviously does not constitute a sense of misfortune! Nor does Kenneth Clarke's review of his achievements! The mid level tone for routine listing is not 'skewed' for either positive or negative assessments of what is listed; rather, it simply indicates the speaker's recognition of the cultural assumptions of their society.

5 Conclusion

The mid level tone for routine listing is, as I observe above, now firmly established. It operates as an addition to the primary tone system in the native speaker set of intonation systems. Halliday's classic statement of the primary tone system in (British) English has a system of five options, with two compounds:

Tone 1   fall

Tone 2   high rise; high fall-high rise

Tone 3   low rise

Tone 4   fall-rise

Tone 5   rise-fall

Tone 13   fall plus low rise

Tone 53   rise-fall plus low rise

This would now to be extended to include

Tone 6   mid level

The addition of the mid level tone as 'Tone 6' is admittedly not the most elegant way of extending the list of options, as it should, logically, follow Tone 3. (It might also be noted that both Tench (1990) and Watt (1994) have argued for a revision of the classic statement, but the critical issue in this paper is *the addition of the mid level tone as an option in the system.*)

The raised high rise for statements with simultaneous verification of addressee's comprehension is, as I have observed above, now an option in the intonation system of many native speakers of English. For them there is this second extension, but it is an option in the secondary system, at Tone 2. The classic statement of the secondary system for Tone 2 is found in Halliday (1967: 53):

Tone (secondary)

        Pretonic   *Tonic*

2 2 high (level, falling, rising)   }   {2 high rise ("straight")

   -2 low (level, rising)   }   {<u>2</u> high fall-high rise ("broken")

Tone ⁺2 would be added on the right:

2 2 high (level, falling, rising)   }   {2 high rise ("straight")

                                                         {⁺2 raised high rise

   -2 low (level, rising)   }   {<u>2</u> high fall-high rise ("broken")

(This formula would allow for Tone ⁺2 to co-occur with two types of pretonic; the level pretonic would be the unmarked, and the less common low pretonic would be the marked case.)

As Halliday (1992) observed, "the system changes by evolving, with selection … by the material conditions of the environment. This is seen most clearly, perhaps, in the evolution of particular sub-systems … where features that are functionally well adapted are positively selected for" (see Halliday 2002: 359-360). I have argued, amongst other things, that the English intonation system has changed, and that two new options have 'evolved' in its tone system, having been functionally adapted from existing features of the system as speakers have developed new 'meaning'.

I have also argued that semogenesis is achieved by at least five processes:

innovation
differential
deconstruction (including dissociation of associated features)
blending
reconfiguration

Halliday & Matthiessen (1999) illustrated the first three in grammar and lexis, and in the intonation of three kinds of question in the case of deconstruction. This paper has sought to account for a further three instances of semogenesis in intonation: the creation of new meanings by a *blending* of falling and rising tones, in the case of the fall-rise; by a blending of the rising

tone on declaratives and the raised pitch for new turns, in the case of the high, or raised, rising tone (the so-called HRT); and the creation of a new meaning by a *reconfiguration* of low level head/pretonic for given information, a step up for incomplete information and a mid level tone for 'pre-coded' information, in the case of a pattern for routine listing.   What has happened, I believe, in these cases is a re-working of our intonational resources in response to our demands in interactive discourse.   The language – in this case, intonation – has changed to allow for more effective communication.

Blending and reconfiguration are semogenetic processes that are productive also in grammar and lexis. The development of the *get*-passive is an example of blending; in this case, it is a blending of the plain passive (*the bread is baked every day*) and inchoative *get* (*bread gets old after a few days*) which produces *fresh bread gets baked each morning*. In lexis, a few cases arise: *chortle* (*<chuckle + snort*), *brunch* (*<breakfast + lunch*). New compounds are readily coined by reconfiguration, either from free forms, eg *blackbird* (*<black + bird*), *computer terminal* (*<computer + terminal*), in which case the compound receives a single primary stress (whereas the original free forms have a primary stress each); or from bound forms, eg *multinational* (*<multi- + national*) and – *semogenesis*, of course!

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