

## RESEARCH ON INTONATION AND THE DESIGN OF ENGLISH LANGUAGE PROGRAMMES

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The contribution of intonation studies is evidenced by the increasing inclusion in course books designed for the language classroom of specific guides and exercises aimed at raising the student's awareness of the importance in discourse of intonational features and helping them towards competency in this area. This paper begins by looking at points of agreement and disagreement regarding intonation among applied linguists and goes on to focus on how theoretical studies have influenced both the language classroom and teacher training.

Crystal asserts that intonation "is not a unitary, homogeneous phenomenon". He goes on to expand this statement by saying that "intonation is not a single system of contours and levels, but the interaction of features from different prosodic systems-*tone, pitch-range, loudness, rhythmicality* and *tempo* in particular (Crystal. 1985, p 10). Crombie and Parker categorise the varying approaches to intonation as *syntactic, attitudinal* and *discoursal* and state that each of these approaches "has something in common in that each is concerned with dividing the flow of speech into *tone groups* or *tone units (tonality)*, locating the syllables on which the major movement of pitch occur (*tonicity*), and identifying the direction of pitch movements (*tone*): (Crombie & Parker 1992.). Added to these three features is the importance of *key*. Each of the components of intonation mentioned above can be looked at in isolation, yet both the linguist and the student of language needs to have an integrated view of what comprises intonation to understand its use.

Central to the concepts of tonality and tonicity in English is timing. Halliday draws attention to two kinds of rhythm in language that are generally accepted - languages with syllable rhythm or timing and those with Pedalian rhythm or foot timing, more usually known as stress timing (Halliday 1985, 271). English is a stress timed language in that, in each foot or beat, a varying number of syllables can occur. This is in contrast to languages such as Japanese and the romance languages in which each syllable is given a similar amount of time. Teachers have long used this difference, both in predicting the problems of students whose first language is syllable timed, and in using techniques and drills aimed at raising learner awareness not only of the rhythms of English, but also the consequent features of stress timing, namely weak forms. For example, we rarely say *to* in English using the long vowel, but rather with a schwa. Halliday refers to the rhythm of verse forms and uses the word 'tumteefication' to describe a way of teaching the rhythm of verse forms to children, going on to posit that musical composition may have derived from elaborating the intonation and rhythm of natural speech (Halliday 1985, 10). This kind of sentiment may be connected to the use of such exercises in language classes as jazz chants and clapping or stamping to the rhythm of a sentence or group of sentences.

Kenworthy, in helping the reader to identify sentence stress or prominence, exhorts the reader to say the following sentence aloud: "I'm twenty-one tomorrow". (Kenworthy 1987, 19.) The syllables

underlined are those carrying stress. However, to stress each of these syllables equally would be misleading and would lead students to a childlike tumteetum effect. McCarthy points to the dangers of this kind of exercise when he says:

“Rhythm training in the classroom can only work with textual *products* rather than the process of creating rhythmic talk, and, indeed, forcing learners to indulge in artificially ‘cramming’ stressed and unstressed syllables into a regular rhythm may take their attention away from the genuinely interactive aspects of stress, not least the *speaker’s choice* as to what is to be stressed and what not.” (McCarthy 1991, 94).

There are some broad agreements as to guidelines for tonicity. We are not concerned here with word stress, but rather with stress or prominence within tone units or groups, that is the relationship between tonicity and tonality. Crystal makes a distinction between open set lexical items (nouns, main verbs, adjectives, adverbs) and closed system ones (pronouns, auxiliary verbs, connectors etc) and asserts that, in 80% of the corpus on which he worked, prominence was placed on open set items (Crystal 1975, 22/23). Brown, Currie and Kenworthy generalise along these lines, assuming that stress will typically fall on open set lexical items while closed system items will tend to be unstressed (Brown, Currie & Kenworthy 1980, p 32). This generality has led to a variety of classroom activities for language learners which will be discussed below.

Tonality, however, is an area in which there is less agreement. There is, however, general agreement in defining a tone group or unit as containing one tonic syllable, that is one syllable with more prominence as regards volume and pitch which carries a major movement of pitch. Halliday asserts that the tone group is the ‘unit of intonation’ and with this there is no argument (Halliday 1985, 274). A tone group can consist of one syllable, for example: “Yes”. Halliday goes on to claim that tone groups coincide with information units based on the clause. Within each tone unit, information will move from *given* to *new*, with prominence falling on the new information, that is, on the last lexical item in the tone group. He relates this to his notion of *theme* and *rheme*, with the *theme* being the *given* information and *rheme* the new, though he states that they are not the same, as the speaker chooses the theme and rheme, while the listener processes the given and new (Halliday. 1985. 278). Tonicity centres on the rheme. However, Brown, Yule contest Halliday’s view of tonality, asserting that the function of pitch prominence is more complex than simply identifying what is new within the tone group. They see as also being relevant the marking of speakers’ turns, contrast, the introduction of a new topic and special emphasis, stating that pitch prominence has a general ‘watch this!’ function (Brown & Yule 1983, 164).

Brown, Currie & Kenworthy point out that, in spontaneous speech, new information can precede given. Speakers may start with the new and then express how it relates to what has been said. They go on to say that “we cannot consistently identify tone groups by intonational criteria” (Brown, Currie & Kenworthy 1980, 29) and add that it is often difficult to identify tonics, a point that Brown and Yule and McCarthy also underline, favouring pause defined units (that is, the part of an utterance bounded by pauses) as the basic intonation unit. This unresolved debate about the most useful approach for segmenting intonation into groups signals that it is a fruitful area for research, but one that is still difficult to translate into pedagogy. What is useful is the general agreement on prominence

being central to the speaker identifying what is to be noted by the listener. In addition, though there are clearly difficulties in identifying tone groups in rapid, spontaneous speech, the authors cited above have been able to identify them both in prepared speech (that is, when speakers are reading texts) and, less consistently, in spontaneous speech. It may be that asking learners to identify for themselves breaks based on perceived meaning could be a useful activity for heightening awareness of the links between tone groups, intonation and meaning. Although I have not found evidence of such an approach in books designed for teaching English language learners.

When we consider tones and their functions, we find that there is a similar debate and an accepted interpretation for classroom use. Halliday identifies five tones, with Tones 1, a fall (∨) and 2, a rise (/), relating to 'polarity'. Tone 1 is used for that which the speaker feels is certain and Tone 2 for uncertainty. Tone 3 is identified as a level tone, though he observes that "phonetically, in fact, it is very hard to find one that is absolutely level; of the many thousands of instances that I have observed in the study of intonation, almost every one has had a slight rising pitch" (Halliday 1985, 281). He describes Tone 3 as 'low rising' (slightly contradictory for a *level tone*) and its function as indicating 'provisional, tentative, afterthought and so on'. Tone 4 is a fall-rise (∨/), meaning 'seems certain, but turns out not to be', indicating doubt, and Tone 5 is a rise-fall (/∨), meaning 'seems uncertain, but turns out to be certain', often associated with contradictory claims. McCarthy seems to agree with this identification of five tones in English. Crombie & Parker, however, argue that there are only four, fall (∨), rise (/), fall-rise (∨/) and rise-fall (/∨). They claim justifiably, that as tone is commonly perceived to entail a major movement of pitch, a level tone is contradictory (Crombie & Parker 1992, 204). Weight would seem to be given in their argument to Halliday's observation that, in fact, what is perceived as a level tone almost always has a slight rise.

The dissimilarity between Halliday's account and that of Crombie and Parker relates to the fact that Halliday sees tone as having a *grammatical* function. Halliday generalises "in the most straightforward instance the unmarked realisation of a statement is falling tone, TONE 1; that of a yes-no question is a rising tone, TONE 2; while that of a WH- question is again tone 1" (Halliday 1985, 281). Although this may be true in the majority of instances of polar and WH- questions, it is a guideline only. In instances of requests for repetition, for example, WH- questions are likely to have a rising tone (/):

- A: I went to the (∨) *bank*.  
 B: (/) *Sorry?* What did you (/) *say?*

The fact that Halliday's generalisations are guidelines only has been recognised by classroom practitioners and Crombie & Parker underline this, stating that "we should not confuse the intonational function itself with possible syntactic or illocutionary accompaniments of that function" (Crombie & Parker 1992, 205). They assert that there are four tones, a rise (/), a fall (∨), a fall-rise (∨/) and a rise-fall (/∨). The fall (∨) "asserts a propositional polarity or propositional attitude" whereas the rise (/) "questions or raises doubts about a propositional polarity or propositional attitude" (Crombie & Parker 1992, 205). Statements such as 'She (∨) passed' clearly assert a proposition and thus have a falling tone. However, as demonstrated above, if said thus 'She (/) passed' with a rise, the speaker is looking for confirmation and, is thus doubting the proposition. Tag questions demonstrate



this assertion clearly as 'She (/) passed, (/) didn't she?' expects the answer yes and can therefore be seen to assert a polarity, whereas 'she (/) passed, (/) didn't she?', raises doubts in that the speaker is unsure of the polarity (that is, of whether her passing is or is not the case).

A fall-rise is explained by Crombie and Parker as assigning 'an opposite polarity to an associated (explicit or implicit) proposition' (Crombie & Parker 1992, 207). For example:

A: Did you do everything?

B: I went to the (/) *bank*.

In the example above, going to the bank is positively asserted and there is an implicature that other things did not take place. In the example below, however, it is probably true that all tasks except the visit to the bank, were completed.

A: Did you do everything?

B: I didn't go to the (/) *bank*.

Crombie and Parker have a similarly clear explanation for the rise-fall (/) saying that it is used "where there is *assertion* or *acceptance* of a particular proposition in the environment of some element of counterexpectation" (Crombie & Parker 1992, 210). It is often associated with innuendo, for example:

A: I saw him with (/) *Phillip*.

Although the Crombie/Parker model is useful in its approach to tone, it has less to say about key. Most influential in the current debate on key is D. C. Brazil (1985), who is cited both by McCarthy (1991, 112) and Crombie and Parker (1992, 211). He identifies three levels of pitch - low, mid and high and suggests that comparatively high pitch (high key) is used for contrastiveness between two tone groups, comparatively mid pitch (mid key) signals addition to what has been said, and comparatively low pitch (low key) is used for reiteration or to demonstrate that the content of two tone units can be equated. The interpretation of key choice refers to choice across tone groups as well as within, yet the teaching of intonation tends to concentrate on the pitch change around the tonic syllable, rather than the relativities of key across one or more tone units. Crombie and Parker simplify the question of pitch thus: "...a steep fall or a steep rise may occur where a speaker is angry, surprised, horrified or excited; a *shallow* fall or rise where s/he is uninvolved or hesitant. Any number of different emotions may be present. However, as far as intonation itself is concerned, all we need to know is that the steepening or narrowing of a speaker's characteristic range simply indicates the addition of some attitudinal factor. It might be said to add the feature [ + attitude ]" (Crombie & Parker 1992, 207). This is in line with McCarthy's view when he says that "emotional intensification tends to be associated with wider pitch contrasts, but that is far from attributing particular emotions and attitudes to particular tone contours" (McCarthy 1991, 107). The attitudinal approach to intonation, exemplified by Boyle (1989, cited in McCarthy 1991, 108), insists that stress and intonation are used to convey attitudes, moods and emotions, and this view has, unfortunately, influenced classroom approaches.

If we survey teaching materials, there are few popular coursebook series that include consistent work on intonation, although the inclusion of pronunciation points has increased markedly in recent years. If we look at two popular series for beginners, *Fast Forward* (Black, McNorton, Malderez and Parker, 1986) and *Beginners' Choice* (Mohammed and Acklam, 1992), we find that pronunciation practice in the latter is much more frequent and overt. While *Fast Forward* claims to include intonation, the relevant page from the teachers book shows that the inclusion is superficial and relatively unhelpful. There is a recommendation to teachers to 'focus on intonation to express concern' (Black et al 1986, 22), but no indication of the pattern. Moreover, there is no concentration on developing students' awareness of stress patterns and, without these, it is impossible to introduce a coherent approach to intonation. *Beginners' Choice*, on the other hand, does include regular work on stress and unstress as well as intonation. However, while the exercises on stress are good for the most part, those on intonation are not so helpful. In *The Beginners Choice Teachers Book*, the pronunciation column for unit 14 shows "Intonation: Imitation: How are you? + answers; showing sympathy" (Mohammed & Acklam. 1992, 6-7). However, the relevant units in the students' and teachers' books make no further reference to intonation bar imitation, and even this is not explicit. There is no guide as to common patterns as described above. Indeed, the lexis introduced, a set of possible answers such as 'very well', 'not bad' and so on, are taught without reference to intonation. However, words or expressions such as these do have typically associated intonation patterns viz. 'very (\) well', featuring a high fall and 'not (\) bad' associated with a lower fall. It is important to include such information in classroom teaching from the beginning, using general guidelines. For example, when teaching adjectives such as 'fantastic' or 'amazing', the teacher should insist on what we could call a high fall on the tonic syllable. If words such as these are said with too flat an intonation, the speaker tends to sound sarcastic, giving the opposite meaning. Words and phrases such as 'Really?' or 'Thank you,' need appropriate intonation too, lest the speaker sound discouraging. Consistent work on intonation from the beginning, either when introducing new language or as a follow up to a listening activity, will also heighten learners' awareness.

Two coursebooks popular at upper intermediate level are *Headway Upper Intermediate Pronunciation* (Bowler and Cunningham 1991) and *Upper Intermediate Matters* (Bell & Gower 1992). The *Headway* series began in 1986 and has been updated consistently. It now includes specific pronunciation books at each level. In *Upper Intermediate Matters* there is consistent work on word and sentence stress, phonemes, word linking and intonation. However, as with *Beginners' Choice*, there are no overall guidelines given and intonation is linked both to attitude (see Unit 2: intonation of surprise and interest) and grammatical point (see Unit 18: intonation of relative clauses). One wonders how the authors came to choose the intonation of relative clauses as one of the few guides to intonation in the book and how useful this would be for learner generalisation. The other point included is in unit 15, the intonation of lists. The teachers' book indicates that we should "notice the voice rises to indicate incompleteness (i.e. there is more of the list to come) and falls to show the end of the list" (Bell & Gower 1992, 105). We have seen above, however, that lists do not have one particular intonation pattern.

*Headway Upper-Intermediate Pronunciation* is the only course book that addresses pronunciation overall and every unit works on sounds & spelling, connected speech, stress and intonation.

Intonation exercises are influenced by both the grammatical approach (See Unit 1 - WH- and polar questions) and the attitudinal approach (See Unit 2 - showing definite or hesitant agreement). The units feature marked intonation over the tone unit, with the stress clearly indicated. This is clearly a reasonable approach and has been influenced by some of the theory outlined above. However, it is disappointing that there is no fundamental guide offered, such as a fall (∨) indicating a known polarity.

There is clearly a need for more guidance for teachers and students of English, guidance that reflects accurately current thinking on intonation research. The Crombie/Parker model provides a useful starting point which can be supplemented by Brazil's work on key.

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