Annalisa Zanola Macola

ENGLISH INTONATION

British and American approaches

Pubblicazioni del Centro di Linguistica dell'Università Cattolica
Trattati e manuali 14

editrice La Scuola

PUBBLICAZIONI DEL CENTRO DI LINGUISTICA DELL'UNIVERSITÀ CATTOLICA

Direttore *Sergio Cigada*

TRATTATI E MANUALI

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La pubblicazione di questo volume ha ricevuto il contributo finanziario dell'Università Cattolica del Sacro Cuore sulla base di una valutazione dei risultati della ricerca in essa espressa.

Officine Grafiche «La Scuola», Brescia
ISBN 88 - 350 - **1701** - 7

To Francesco

FOREWORD

The importance of studying the manifold aspects of intonation is becoming increasingly evident as oral discourse, with all the intricacies and complexities that it entails, broadens its boundaries to encompass innovative forms of global communication. Investigations into oral communication today are geared towards exploring how it is systematically patterned towards fulfilling diverse socio-cultural goals and significant progress has been made in identifying the way discourse features work in sequence to produce coherent stretches and exchanges of language in context. However, most of the attention over the last decades has been centred on various forms of discourse and conversation analysis in terms of overall patterns of social interaction with comparatively little research addressing the province of intonation. Within this framework, therefore, *English Intonation: British and American Approaches* by Annalisa Zanola Macola is a welcome addition to studies in oral communication in that it envisages intonation as a crucial component of both the transactional and interactional uses of language.

Intonation plays a crucial role in all aspects of our social life since it constitutes a fundamental and distinctive feature of both dialectal and registral varieties of language. Geographical differences are well represented by American and British usage although several other parts of the English speaking world, notably Australia and New Zealand, display noticeable preferences for ending statements with intonation patterns that are normally associated with questions. Interestingly, this is also a routine feature of some regional English accents, as for instance in North East England. Moreover, recent studies have found that preferences for certain intonational patterns over others are correlated to gender, age, social class and ethnic groups.

Intonation is also patterned in response to the context of situation in

which it is used. For instance, whenever a person learns a new variety of language when taking up a new social role or when presenting a professional image, this involves mastering the use of new kinds of suprasegmental features. Intonation is one of the most distinctive markers of professional roles as, for instance, in the case of lawyers, newscasters and sports commentators. Within the continuum of the spoken mode intonation characterizes all forms of oral communication from natural spontaneous conversation, at one extreme, to the conventionalized prosody of restricted languages, like Seaspeak, at the other extreme, where intonational patterns are highly standardized to avoid any kind of miscommunication.

Pragmatic factors influence users in selecting sounds, grammatical constructions and vocabulary from the resources of language and this is also true for intonation. Individual speakers have control over their intonation and their choice is of linguistic significance. They opt for different forms of intonation according to how they wish their utterances to be interpreted, according, that is, to the purpose or function of their overall discourse. A significant contribution of *English Intonation: British and American Approaches* is its emphasis on the pragmatic features of intonation. The two facets of all language study, form and function, are seen as two sides of the same coin and a major feature of Annalisa Zanola Macola's book is to assert their interdependence. This approach is fully in keeping with the increasing concern in linguistic analysis today with the need to see language as a dynamic, social interactive phenomenon and with the recognition of the close relationship between language stuctures and their use for socially created purposes.

The term *intonation*, as the Author points out, is, however, still open to interpretation since it presents a range of partially conflicting orientations among linguists. Of particular relevance to ongoing studies, therefore, is the historical perspective of Annalisa Zanola Macola's book in terms of defining the forms and functions of intonation. The in-depth treatment of the historical foundations of intonation reveals that the controversial issues that govern the description of intonation today have traditionally aroused the most lively debates and have tended to resurface at various points in history in somewhat different formulations. However, in delving into the issue of defining the term "intonation" from both a historical and synchronic perspective, the Author clearly

shows that she views diversity of opinion as a sign of healthy growth in the subject. American and British approaches to intonation are similarly seen as complementary rather than contrasting tendencies.

English Intonation: British and American Approaches effectively demonstrates how spoken language includes a great deal of variation as speakers exploit the potential of intonational features to their full rhetorical effect and constitutes an important contribution to pragmatically driven studies of intonation. In particular, the historical perspective on intonation offered by the book provides interesting insights into developments within intonation studies and the ways suprasegmental discourse features have been viewed throughout the centuries. It offers both teachers and students a valuable means of achieving a deeper and richer appreciation of intonational features of English and of applying this awareness to their daily practice.

Margherita Ulrych

INTRODUCTION

Λόγος δυνάστης μέγας ἐστίν, ὃς μικροτάτῳ σώματι καὶ ἀφανεστάτῳ θειότατα ἔργα ἀποτελεῖ· δύναται γὰρ καὶ φόβον παῦσαι καὶ λύπην ἀφελεῖν καὶ χαρὰν ἐνεργάσασθαι καὶ ἔλεον ἐπαυξῆσαι.

Speech is a great lord, who by means of the smallest and least visible body accomplishes the most godlike acts; for it is able to stop fear and lift pain and instill joy and increase pity.

Gorgias' ***Encomium of Helen***

Speaking sounds must have an inflection: any 'mono-tone' inflection would be perceived as uninteresting by the listener. In other words, intonation is inevitable in speech. By 'intonation' I mean the manner of utterance of the tones of the voice in speaking, the modulation of the voice, the rise and fall in pitch of the voice in speech. It indicates the act of performing the movements of pitch. Every 'intonational performance' is original and every intonational contour is unique, because the tones of intonation are relative, not absolute.

The subject may sound 'old' to any linguist, or phonetician, or rhetorician, or even to some actors and speakers. However, I hope that my approach will not. Francis Petrarch's words have been an encouragement to me in these years of work on the subject, as they must have been to his friend Tommaso da Messina centuries ago:

But here you object once more: "Why is it necessary for us to take so many pains, if all the things that are supposed to benefit people have already been written down in absolutely marvellous style by divine geniuses during the past thousand years and preserved in countless volumes?". Put this concern aside, I beg you, and never let it induce you to be lazy, for certain ancestors of ours have already removed this worry, and I myself will now remove it for those who come after me: for although ten thousand years may pass and centuries pile upon centuries, never will virtue be praised

enough; never will there be enough lessons about how to love God and to hate sinful pleasures; ***never will the road to the discovery of new ideas be closed to eager minds****. Therefore, let us be of good spirit: we do not labor in vain, nor will those do so who will be born many ages in the future right up to the end of this aging world. Rather, it is to be feared that men will cease to exist before their efforts in humanistic studies will have enabled them to penetrate the most secret mysteries of truth*.*

Eagerness for new ideas was my best friend throughout this research, together with a strong interest in oral communication through the centuries.

British and American elocutionists, specialized in the correct usage of the voice in public speaking, have taught that speech communication can be considered a form of rhetoric in that it uses the five traditional rhetorical canons to get a point across to the audience effectively. *Invention, arrangement, style, memory and delivery* have been considered as fundamental keys to speech. The last, *delivery,* has had a particular influence over the effectiveness of any oral performance, because it refers to the way any orator uses his or her voice and gestures to accompany spoken words.

While revisiting some of the most influential studies on English oral language of the past, my goal here has been that of re-evaluating intonation as one of the main components of 'delivery'. Intonation is a primary device for oral communication and it is high time that its pragmatic value was emphasized.

The present volume is, to the best of my knowledge, the first textbook on English intonation entirely based on an evolutionary and historical approach. By making this choice, I have given credence, it is hoped, to the notion that knowledge proceeds on a progressive plane. It follows, therefore, that in studying the theories of different centuries, it is important to know how these theories not only set forth a new emphasis but also how they have been derived in part from earlier works. Because of my strong interest for the sources, I have explored British and American

* Francis Petrarch (1304-1374), *Letter to Tommaso da Messina, Concerning the Study of Eloquence* (1333?), (in *Familiar Letters,* transl. from *Le familiari*, ed. by Vittorio Rossi, Sansoni, Firenze 1933, I: 45-48). Quoted from: W.A. Rebhorn ed., *Renaissance Debates on Rhetoric,* Cornell University Press, Ithaca/London 2000, p. 17.

texts from the sixteenth century onwards, to find the origins of the major contemporary trends in the study of English intonation.

The most recent intonational theories may be divided into two fundamental groups: those originating from the British linguistic approach to the study of the English language, and those born from the rhetorical, rather than linguistic, American tradition. My goal here, in brief, is to advance the notion that this division is by no means 'new'. In other words, the nature of the opposition between the traditionally 'British' description of intonation in terms of *intonation contours* against the 'American' treatment of *intonation levels* should find its 'raison d'être' in the first studies on English prosodic features.

Therefore, the book has its authentic foundations in the last two chapters, entitled *British Historical Foundations* and *American Historical Foundations*. However – and this is the authentic paradox of the subject 'intonation' – these chapters are not fundamental to the understanding of the first three, which are devoted to the definition and description of the English intonational phenomenon on the whole. In other words, the reader may either follow the 'simple' path of learning how to describe English intonation, or explore the extraordinary world of the history of English and American intonation studies.

The ideas presented in this volume both influenced and were influenced by the results of a doctoral Dissertation on Applied Linguistics presented at the Catholic University of Milan in 1996. The first results of that study were 'revisited' in the years 1997-2000 and led to a first – preliminary – draft of this volume, entitled *English/American Intonation and its Historical Foundations*. For that draft, I am particularly indebted to the Rhetoric Society of America, to its former President professor Frederick Antczack of Iowa University and to professor Robert Gaines of the University of Maryland, for all the comments and suggestions made during the 2000 RSA Conference in Washington D.C., which have been fundamental to the study of the American approach to intonational studies.

This volume is based on the previous experiences, of course, but it is enriched by some years of deeper studies and of teaching English intonation to Italian university students. However, my principal acknowledgement for the publishing of the book must be to professor Margherita Ulrych, who has believed in my project and has encouraged me in putting it forward.

Chapter 1
'INTONATION': TOWARDS A DEFINITION

Intonation is the rise and fall of the voice pitch. This apparently obvious and simple definition is not exhaustive, however. A wide range of other possible definitions has been produced in the last decades by:

a) current monolingual English dictionaries (in their traditional and online format);

b) encyclopaedic dictionaries.

No research could be exhaustive, since the sources here consulted are so rich with suggestions that the subject could well deserve an independent treatment. Much effort has been made to select those definitions - among the great number of repeated and unoriginal ones - that seemed representative of:

i) the meaning of the word through the centuries;

ii) the current meaning of the word in the two main fields where it is used: *music and linguistics (or phonetics).*

Not only will this analysis show how strong the dichotomy between *musical intonation* and *oral intonation* (once known as *melody of speaking)* is; it will also point out that the importance of *oral intonation* is generally underestimated. And yet, the etymology of *intonation* will testify clearly the distinct origins of the word in *the linguistic* and in *the musical domain.*

1.1. *Etymology*

The word *intonation* appeared for the first time in a French text in 1372[1].

Its origin is double: it comes from the Latin *intonāre,* which - in its turn - takes origin from the Greek τόνος. Unfortunately, the semantic relationship between the two sources is false. The Latin word *intonāre* had the intransitive meaning of *thundering,* both in a literal and in a figurative sense, whereas the Greek word τόνος (v. τείνω, inf. τείνειν, meaning 'to pull, to stretch') contains in itself the idea of 'effort, tension'[2]. It is the Greek word which was commonly used with the current value of 'tone' or 'tune', as demonstrated in Aristophanes (450-388 B.C.) and in Herodotus (5th century B.C.): in Aristophanes' writing we find the phrase τοῦ τόνου ὑφίεσθαι (to lower one's voice), where τόνος refers to the 'loudness' of the sound, and Herodotus speaks of poems written ἐν ἑξαμέτρῳ τόνῳ, that is in hexameters[3].

Hence the current double role played by the word *intonation.* On the one hand it is used quite commonly to describe any modulation of voice and sounds (Greek etymology), on the other hand it refers to the far less common meaning of "thundering; roaring or rumbling as a thunder" (Latin etymology)[4]. The *Dictionnaire étymologique de la langue grecque, étudiée dans ses rapports avec les autres langues indo-européennes* by E. Boisacq underlines this dichotomy. The entry τόνος is described as:

[1] For a discussion on this topic see: Centre National de la Recherche Scientifique/Institut National de la Langue Française de Nancy, *Trésor de la langue Française. Dictionnaire de la langue du XIXe et du XX siècle (1789-1960),* Editions du Centre National de la Recherche Scientifique, Paris 1983, Tome Dixième, s.v. *intonation:* "1373 - action de mettre un chant sur le ton dans lequel il doit être (en manière de plaint chant). G. Goulain".

[2] E. Boisacq ed., *Dictionnaire étymologique de la langue grecque, étudiée dans ses rapports avec les autres langues indo-européennes,* Carl Winter's, Heidelberg; C. Klincsieck, Parigi 1938, s.v. τόνος.

[3] L. Rocci, *Vocabolario greco-italiano,* Società Editrice Dante Alighieri, Florence 1971 (23rd edit.), s.v. τόνος. The dictionary suggests some other interesting examples of the usage of the word τόνος in: Demosthenes 319, Plato: Republic 617d; see also the verb τονόω, used by ancient grammarians with the meaning of 'to stress'. See also: M.A. Bailly ed., *Dictionnaire Grec-Français,* Hachette, Paris 1930 (14th edit.), which demostrates the existence of a plural form in Aristotle's *Rhetoric* (3, 12, 4).

[4] *OED Online,* Oxford University Press 2000, s.v. *intonation (2).* Http://dictionary.oed/com.

> Tension; intensité, force, vigueur; mode musical, ton (ce dernier sens par absorption d'un mot apparenté à lat. *Tonare*); [...] skr. *Tanōti,* 'tendre, s'étendre, durer'. Lat. *Teneo*, 'subsister, se maintenir, durer, tenir'[5].

The etymological analysis has helped in finding the original meaning of the word. The evolution of the item through the centuries will be now considered, starting from the first case attested.

1.2. *'Intonation': 1500-1900*

The Oxford Dictionary of English Etymology indicates the sixteenth century as the period when the word *intonation* was used for the first time in its current meaning of 'production of musical tones' by the voice or by an instrument. By that time, the word referred only to the musical domain, indicating any "opening phrase of a plaisoning melody"[6]. The dictionary also recognizes a secondary meaning of the word, that is 'modulation of the voice in speaking', which was attested during the seventeenth century. Nevertheless, in 1690 the French *Dictionnaire Universel* by A. Furetière still defined it exclusively in its musical sense:

> Action par laquelle un choeur commence à chanter, à entonner un psaume. *Après que la procession fut rentrée dans l'église, on ouït les chantres qui firent l'intonation du TE DEUM.* Il ne se dit guère hors de cette phrase[7].

During the eighteenth century the first treatises on English intonation did not refer explicitly to the word *intonation*, but they used some other words to refer to it, such as *melody of speaking* or *tunes.* In 1787 John Walker did not use the word in his treatise on *The Melody of Speaking,* the first pedagogical treatise aimed at giving a guide to those who wanted to read and speak well[8].

[5] E. Boisacq ed., *Op. Cit.,* s.v. τόνος.

[6] C.T. Onions ed., *Oxford Dictionary of English Etymology,* Oxford at the Clarendon Press, London 1966, s.v. *intonation.*

[7] A. Furetière, *Dictionnaire Universel, Contenant generalement tous les Mots François tant vieux que Modernes, & les Termes de toutes les Sciences et des Arts* (Arnout & Renier Leers, La Haye/Rotterdam 1690), Slatkine Reprints, Genève 1970, s.v. *intonation.*

[8] J. Walker, *The Melody of Speaking, Delineated; or Elocution Taught Like Music, by Visible Signs, Adapted to the Tones, Inflexions, and Variations of Voice in Reading and Speaking, with Directions for Modulations, and Expressing the Passions* (1787), Scolar Press, Menston 1970.

Joshua Steele introduced the word in his *Essay* (1775), the first impressive study of English intonation. Paradoxically, even in this text the word is employed only in a musical sense:

> [The melody of speech] is not like the proclamation of a parish-clerk announcing the psalm [...]. Neither is it like the *intonation of the chorostates*, or precentor in our cathedral [...][9].

During the nineteenth century the linguistic usage of the word was finally attested. In 1897 the English scholar Behnke wrote in *The Speaking Voice*:

> The voice, with all its marvellous powers of intonation, inflection, modulation, and expression, should be made the interpreter of the noblest thoughts and deepest feelings. It can be made to convey the finest subtleties of the human mind, and can convert mere words into vivid vocal pictures[10].

At the same time, in the U.S.A. James Rush considered the strong relationship between music and speech and gave a definition of *melody* in his scientific study of the human voice (1827):

> The term *melody* is, in music, applied to a regulated vocal or to an instrumental use of the diatonic and chromatic scales. The full meaning of the word embraces the further relations of time, rythmus *(sic)*, and pause[11].

He described *intonation* as something different from *melody*:

> The term *intonation* signifies the act of performing the movements of pitch on any interval of the several scales, whether in speech, in song, or in instrumental use. [...] Intonation is said to be correct or true, when the discrete steps, or concrete slides, over the intended intervals are made with exactness. True intonation in speech means further; the just use of its intervals, for denoting the states of the mind in thought and passion. Deviation

[9] J. Steele, *An Essay Towards Establishing the Melody and Measure of Speech, to Be Expressed and Perpetuated, by Peculiar Symbols* (1775), Scolar Press, Menston 1969, p. 15.
[10] K. Behnke, *The Speaking Voice,* Curwen & Sons, London 1897, p. 98.
[11] Cfr. J. Rush, *The Philosophy of the Human Voice,* The Library Company of Philadelphia 1893 (7th edit.), in M. Bernstein ed., *The Collected Works of James Rush,* M & S Press, Weston 1974, p. 84.

from this precision is called singing, or playing, and it may be hereafter, *Speaking out of tune*[12].

Rush's definition of *intonation* is unacceptable nowadays, since he identified musical rhythm with speech rhythm. Music is composed to be repeated, but speech is not. Musical notes are produced on fixed frequencies, so that we can say that an instrument is 'in tune' or 'out of tune'; on the contrary, human beings cannot 'speak out of tune'.

At the beginning of the twentieth century the opposition between musical and oral intonation had not been explained yet. In 1902 Edward Wheeler Scripture used *intonation* as a synonym of *melody*[13]: in the chapter entitled *Melody* he states that the melody of speaking should be studied together with the melody of song.

Finally, the twentieth-century treatises of some eminent English and American scholars (Jones, Palmer, Sweet, and Pike among them) succeeded in defining clearly what intonation is and what it does[14].

1.3. *'Intonation' in the Oxford English Dictionary*

The *Oxford English Dictionary (OED)*[15] insists more on the usage of the word 'intonation' in music than in oral speech: three out of four definitions of the item are related to the musical domain.

[12] *Ibid.*, p. 85.

[13] E.W. Scripture, *The Elements of Experimental Phonetics*, E. Arnold, London 1902.

[14] For a discussion on this topic see the Introduction to: M. Rossi, A. Di Cristo, D. Hirst, Ph. Martin, Y. Nishimuna, *L'intonation de l'acoustique à la sémantique*, Klincksieck, Paris 1981, p. 3: "A partir du moment où il est reconnu que la mélodie de la phrase est un chant ou une partie essentielle de celui-ci, la voie est libre pour que le terme intonation qui est mélodie du chant devienne désormais mélodie de la phrase. Effectivement, à la fin de ce chapître [*sur la mélodie*] Scripture utilise une fois *intonation* dans cette nouvelle acception quand il parle de l'enfant qui emploie 'les degrés et les modulations de l'intonation' dans l'apprentissage linguistique".

[15] J. Simpson, E. Weiner eds, *Oxford English Dictionary*, vol. V, Oxford at the Clarendon Press, Oxford 1989, s.v. *intonation*. The research has been enriched by the usage of the Second edition of the Oxford English Dictionary in its most recent on-line format (*OED Online*, Oxford University Press 2000: http://dictionary.oed/com).

1.3.1. *Four cases*

The four definitions given by the OED are given in this chapter, together with all the possible combinations of the word with other related items[16].

1. The first definition concerns church music:

The opening phrase of a plain-song melody, preceding the reciting-note, and usually sung either by the priest alone, or by one or a few of the choristers; the recitation of this.

Chronologically, this is the most ancient meaning given to the word. It was attested for the first time in 1620 in the *Sarpi's Historie of the Council of Trent* by Nathanel Brent, who used it in the expression 'to make the intonation' (i.e. 'to intone'): "*It was replyed that he might have suffered others to make the intonation, and not to have been the Author himself of that prejudice*". The *OED* gives three other examples for the same meaning, dated 1696, 1852, and 1880:

> 1696 PHILLIPS (ed. 5), Intonation, the giving the Tune or Key by the Chanter to the rest of the Quire. 1852 HOOK Ch. Dict. (1871) 399 Intonation is, properly speaking, the recitation by the chanter...of the commencing words of the psalm or hymn, before the choir begins. 1880 W. S. ROCKSTRO in Grove Dict. Mus. II. 12 Some of the most important Intonations in general use are those proper to the Gregorian Tones. Ibid., Handel, in 'The Lord gave the word', from 'The Messiah', uses the Intonation of the First Tone, transposed a fourth higher, with wonderful effect [OED 2000].

2. The second definition testifies the musical meaning inside and outside church music:

[16] From now on the acronym *OED2000* at the end of quotations indicates the source, s.v. *intonation (1), intonation (2),* including *compounds and derivatives of 'intonation'.*

The action of intoning, or reciting in a singing voice: esp. the musical recitation of psalms, prayers, etc. in a liturgy, usually in monotone.

Three examples are given. The quotations dated 1794 and 1795 give an idea of the first application of the word outside church music:

> 1788 GIBBON Decl. & F. xlviii, The conspirators... expected, as the signal of murder, the intonation of the first psalm by the emperor himself. **1794** MATHIAS Purs. Lit. (1798) 233 Her bolder notes the willing muse should swell In lyrick intonation grave and deep. **1795** MASON Ch. Mus. ii. 90 These were all sung not merely in simple intonation or chaunt, but in this mode of figurate discant.1862 F. HALL Hindu Philos. Syst. 68 The recitation and intonation of hymns of praise from the Veda [OED 2000].

3. In *A General History of Music (1776)* by E. Gibbon a third meaning of the word, is given, that is:

The utterance or production (by the voice, or an instrument, etc.) of musical tones: in reference to manner or style, esp. to exactitude of pitch or relation to the key or harmony.

The modern 'fixed intonation', referred to instruments (especially keyboard instruments) in which the pitch of each note is fixed, not variable at the will of the performer, may be considered part of this definition. The phrase is used in 1878 in the *Dictionary of Music* by Grove (*"On instruments of fixed intonation C × = D [etc.]"* [OED 2000]).

4. A fourth definition of 'intonation' is also given by the OED:

Manner of utterance of the tones of the voice in speaking; modulation of the voice; accent.

The word is used in this sense for the first time by T. Newte in *A Tour in England & Scotland in 1785 (1791)*, where the Author affirms that: "The people of Inverness are not only free from that unfortunate intonation of Aberdeenshire but speak the English language with greater purity than they do in any other part in Scotland". In *The Last Baron (1843)* by E.G. Lytton we read: "There was a marked distinction in the intonation, the accent, the modulation of the voice".

In the first OED edition (1933) an interesting addendum was given to this fourth meaning inside *A Supplement to the Oxford English Dictionary.*

> 1. (M. SCHUBIGER, *The Role of Intonation in Spoken English*, 1935) Word-order can remain unaltered, and then the different intonation, the rising instead of the falling tune, is the sole bearer of the interrogative relation. 2. (W. S. ALLEN Vox Latina 6, 1965) It is important to distinguish tone from intonation. The former refers to the pitch-patterns operative within individual words, whereas 'intonation' refers to the pitch-pattern operative over the whole clause or sentence [OED 2000].

1.3.2. *Compounds and Derivatives*

From the second half of the 20th century, the word *intonation* started to be used in combination with other words.

The most common phrases are grouped here:

1. **intonation change.** It was used for the first time in 1964 by C. Barber to indicate "intonation-changes inside the syllable which require a certain length of vowel to manifest themselves"[17].
2. **intonation contour.** The expression was adopted by K. Pike in his *Intonation of American English* to describe a succession of levels of pitch extending over an utterance: "All speakers of the language use basic pitch sequences in similar ways under similar circumstances. These abstracted characteristic sentence melodies may be called Intonation Contours"[18].

[17] C. Barber, *Present Day English,* iii, p. 50, quoted in *OED* (on-line edition), cit., s.v. *intonation.*

[18] K. Pike, *Intonation of American English,* The University of Michigan Press, Ann Arbor 1945, p. 20.

3. **intonation curve.** The phrase is used to describe the rising and falling of pitch within an utterance. It is synonym of 'melodic curve'.
4. **intonation pattern.** Born in the sixties, the phrase applies to a pattern of variations in pitch.
5. **intonation phoneme.** Sometimes replaced by the word 'intoneme' (or by the less frequent 'toneme'), the compound was used in the fifties by K. Pike to describe an intonation pattern that contributes to the meaning of an utterance[19].
6. **intonation tune.** It is sometimes used instead of *intonation*, to indicate "regular sequences coextensive with a whole sentence or with successive parts thereof, and constituting an essential feature of normal spoken utterance"[20].
7. **intonation turn.** The phrase indicates the point, usually at a prominent part of an utterance, at which the intonation rises or falls. Maria Schubiger used this expression in her *Role of Intonation in Spoken English*: "If the psychological predicate consists of several words the most important gets the intonation turn"[21].

Among the most frequent words derived from *intonation* there are some nouns, verbs, adjectives and one adverb.

NOUNS: intoneme, intonement

1. intoneme. See *intonation phoneme.*

2. intonement. Sometimes spelled **entonement,** this is an obsolete word used to describe the action of intoning or chanting. One example from a nineteenth-century text:

> 1846-53 ROCK *Ch. Of Fathers* IV.xii.137. Each took his own side of the choir for the entonement of the antiphons [OED 2000].

[19] For a discussion on this topic see *Ibid.,* p. 10. The source for the Author's definition of 'intonation phoneme' is to be found in the studies of Leonard Bloomfield: "Leonard Bloomfield in 1933 made a great forward step when he attempted to apply to intonation the principles which had proven so effective in the analysis of significant units of sound" *(Ibidem).*

[20] *OED* (online edition), cit., s.v. *intonation.*

[21] M. Schubiger, *The Role of Intonation in Spoken English,* Heffer, Cambridge 1935, p. 9.

VERBS: intonate, intone

1. intonate. It is an obsolete word, derived from the Latin verb *intonare.* In phonetics, it is attested in the second half of the 19th century as a synonym of *to voice,* i.e. "to emit or pronounce with sonant vibration". The only example proposed by the OED gives the past participle form of the verb, and recalls the similar use of the adjective *intonable*:

> 1875 WHITNEY *Life Lang.* Iv.66. The *l* sets the tip of the tongue against the roof of the mouth, but leaves the sides open for the free escape of the intonated breath [OED 2000].

Some other examples, almost contemporary to the previous one, show that the verb was commonly used during the 19th century to describe the action of giving a peculiar, specified, or indicated intonation to an utterance.

> 1823 *New Monthly Mag. VIII. 18* 'Thus' is intonated comparatively high. 1824 *Blackw. Mag.* XV. 589 The Italian naturally intonates his language with greater violence, and change of tone and emphasis, than an Englishman does [OED 2000].

The transitive form of the verb is less common and is used only in the sense of "to recite in a singing voice", usually in monotone:

> 1795 ROSCOE *Lorenzo (1796) II. 270* Savonarola... intonating with a tremendous voice, the salm 'Exurgat Deus'. 1858 DE QUINCEY *Th. Grk. Trag.* Wks. IX. 74 The recitation... was undoubtely much more sustained, and intonated with a slow and measured stateliness. 1864 SIR F. PALGRAVE *Norm & Eng. III 631* As little intelligible to his auditors, as if Caedmon were to intonate his glee at an oratorio in Hannover Square [OED 2000].

2. intone. It is a synonym of 'intonate' in its last meaning. In general, it refers to the musical domain, in particular to church music.

> 1880 W.S. ROCKSTRO in Grove *Dict. Mus.* II.12 *Intoning,* The practice of singing the opening phrase of a Psalm, Canticle, or other piece of Ecclesiastical Music, not in full chorus, but as a solo or semi-chorus,

assigned either to a single Priest, or to one, two, or four Leading choristers [OED 2000].

ADJECTIVES: intonational, intonable

1. intonational. It refers only to the linguistic and phonetic value of the word *intonation.* Some examples:

1895 J. OSGOOD in Forum June 503 The misused intonational 'twist', technically noted as the circumflex inflection. 1952 Trans. Philol. Soc. 91 Differences of intonational relationship between stem and ending. 1958 C. F. HOCKETT Course in Mod. Ling. 45 Certain types of speech show a total loss of intonational contrasts. 1971 D. CRYSTAL Ling. 133 The intonational movement over the noun phrase as a whole must be indicated [OED 2000].

2. intonable. The adjective refers in general to a song or to an instrument which can be intoned. Nevertheless, the OED gives an interesting example, dated 1864, where *intonable* is an attribute of a consonant and is synonym of 'voiced'.

1864 MAX MÜLLER *Sc. Lang.* Ser. II. Iii. (1868)133. The letter 'sh' as heard in 'sharp', and 'j' in the French 'jamais'; the former mute, the latter intonable [OED 2000].

ADVERBS: intonationally

intonationally. It means 'in an intonational manner', where *intonational* has a linguistic and phonetic value. The OED2000 examples are quite representative:

1949 E. A. NIDA Morphol. (ed. 2) 62 In English the sentence-final glides which follow the last intonationally stressed syllable constitute morphemes. 1957 Publ. Amer. Dial. Soc. XXVIII. 6 We might start intonationally with Qs [sc. questions] classed as upmoving and downmoving. 1964 R. H. ROBINS Gen. Ling. iii. 112 The different ways in which pitch differences are exploited intonationally and tonally [OED 2000].

1.4. *'Intonation' in two American Dictionaries*

All the British monolingual dictionaries generally agree with the OED in attesting the double value of the word. The same happens in American dictionaries which in some cases tend to underline the musical meaning before the linguistic one, in some others do not. In the Merriam-Webster Dictionary (2000) at the entry *intonation* we read:

> *intonation.* Date: 1620. 1. The act of intoning and especially of chanting; 2. Something that is intoned, *specifically:* the opening tones of a Gregorian chant; 3. The ability to play or sing notes in tune; 4. Manner of utterance; *specifically:* the rise and fall in pitch of the voice in speech[22].

The fourth meaning did not appear in the *Webster's Revised Unabridged Dictionary,* dated 1913[23]. On the contrary, *The American Heritage Dictionary of the English Language* considers it as the main meaning, so that three of the given meanings are related to the linguistic and phonetic value of the word, and the musical meaning is indicated in an entry apart from the rest of the text.

> *Intonation. 1.*A manner of producing or uttering tones, especially with regard to accuracy of pitch. 2. (Linguistics) The use of changing pitch to convey syntactic information: *a questioning intonation.* 3. A use of pitch characteristic of a speaker or dialect: 'he could hear authority, the old parish intonation coming back into his voice' (Graham Greene). 4. (Music) The opening phrase of a plainsong composition sung as a solo part[24].

Criticizable though the linguistic definition (number 2 of the entry) may be, it has the advantage of suggesting a more complete and satisfactory definition of the word. Such a definition reminds of some explanations of *intonation* given in contemporary English encyclopaedic dictionaries.

[22] *Webster Dictionary,* Merriam-Webster Inc. 2000 (*http://www.m-w.com),* s.v. *intonation.*
[23] *Webster's Revised Unabriged Dictionary (1913) (web1913),* s.v. *intonation,* in *http://dict.org*
[24] *The American Heritage Dictionary of the English Language* (3rd edit.), Houghton Mifflin Company, s.v. *intonation,* in *http://dictionary.com*

1.5. *Towards a definition*

The British approach and the American approach to the linguistic and phonetic study of intonation are substantially different. As will be shown in Chapters 4 and 5, the so-called *British School* describes it in terms of intonational *contours*, whereas the *American School* introduces the concept of intonational *levels.*

Nevertheless, the most recent encyclopaedic dictionaries, both of the American and the British schools, have one thing in common: they all insist on making a strong distinction between oral and musical (instrumental or sung) intonational performances. The eighteenth-century lesson of John Walker is still valid:

> All vocal sounds may be divided into two kinds; namely, speaking sounds and singing sounds. *Singing sounds* are such as continue a given time, upon one precise point of the musical scale, and then leap as it were from one note to another; but *speaking sounds*, instead of dwelling on the note they begin with, slide either upwards or downwards to the neighbouring notes, without any perceptible rest of any; so that speaking sounds are exactly of the same kind with those that are produced by a violin when the finger slides up and down the string, while the bow is drawn across it. *The singing sound, therefore, is a Monotone, and the speaking sound a slide or inflexion*[25].

Walker's words are so clear and his explanation so complete that some more recent definitions of the word sound almost too elementary. For example, in *A Dictionary of Stylistics* by K. Wales we read:

> In Phonetics *Intonation* describes the distinctive prosodic patterns or contours of rise and fall in pitch or tone in speech utterances. We rarely speak on one level continuously; that would be monotonous[26].

A Comprehensive Grammar by R. Quirk et alii gives a more exhaustive definition of *intonation.* The Authors underline that this prosodic feature cannot be studied alone, but in relation to *stress* and *rhythm.*

[25] J. Walker, *Op. Cit.*, p. 7.
[26] K. Wales, *A Dictionary of Stylistics,* Longman, London-New York 1989, p. 260.

> We speak of INTONATION when we associate relative prominence with pitch, the aspect of sound which we perceive in terms of 'high' or 'low', 'falling' or 'rising', broadly as these terms are used with reference to a scale of musical notes. [...]We speak of STRESS when we are considering the prominence, usually perceived as greater loudness by the listener, with which one part of a word or longer utterance is distinguished from other parts. [...]We speak of RHYTHM when we are considering the pattern formed by the stresses as peaks of prominence or beats. These occur at somewhat regular intervals of time, the recurring beats being regarded as completing a cycle or 'measure'[27].

Intonation is, therefore, completely different from musical melody. In contrast to music, there is, in speech, no absolute pitch and there are no fixed intervals to be observed in intonation. All pitch distinctions are acoustically relative, however absolute they may be linguistically.

Intonation and *intoning* are two different entities: the movements in linguistic pitch are purely relative. A person speaking with a high-pitched voice may end a fall at a point far higher than the point at which a fall began as uttered by a low-pitched voice: yet, despite total dissimilarity in fundamental frequency or acoustic quality, both falls would be instantly recognized as linguistically identical. Again, even where they begin at the same point in pitch, two speakers will differ very considerably in the amount of pitch movement that may constitute a rise, yet both rises may be received by hearers as in some sense identical, so far as a purely linguistic interpretation is concerned[28].

Crystal insists on this important aspect of intonational studies at the entry *suprasegmentals* in *The Cambridge Encyclopedia of Language:*

> *Music is composed to be repeated; speech is not.* And, if we examine modern western music, we find tones that have been given absolute values, whereas those of speech are relative[29].

[27] R. Quirk et alii, *A Comprehensive Grammar of the English Language*, Longman, London/New York 1985, p. 1588.

[28] For a discussion on this topic see: *Ibid.*, pp. 1603-1604.

[29] D. Crystal, *The Cambridge Encyclopedia of Language,* Cambridge University Press, Cambridge 1987, part IV, p. 173. My italics.
Crystal (D. Crystal, *Prosodic Systems and Intonation in English,* Cambridge University Press, Cambridge 1969, p. 108) against Davis' opinion (A.H. Davis, *Modern Acoustics,* Macmillan,

Some scholars tried to use a musical notation to transcribe pitch differences in speech, but this came out to be fundamentally misleading. This aspect will be widely demonstrated in the next chapters, especially for the cases of Joshua Steele in the British Tradition and James Rush in the American Tradition. Music has a limited number of tones of specific frequency, the distances between the tones being regularly definable, and usually given by reference to some specific musical tradition. On the contrary, in speech the distance between any two tones is not fixed, but can vary according to individual, context, language, or other peculiar factors. In other words, the tones of intonation are relative, not absolute. Or, as Crystal said, *People are not instruments. They do not speak out of tune*[30].

In other words, the dichotomy between *musical intonation* and *oral intonation* (once known as *melody of speaking)* is a very important one, in order to approach the study of intonation correctly. The etymology of *intonation* has shown clearly both the musical and the linguistic origins of the word.

Although the dichotomy is recognized nowadays, the importance of *oral intonation* is generally underestimated. The topic requires therefore a deeper discussion, which will be the aim of the next chapter.

New York 1934, p. 235: "equal ratios of frequency give rise to equal intervals of pitch"), emphasizes how different frequency variations and tonal variations are. In fact, "the sensation produced by comparing a tone of 200 cps to one of 100 cps, [...]is not equivalent to that produced by comparing a tone of 100 cps with one of 50 cps; and that this absence of a direct proportion affects the whole range of audible frequencies (approximately 20-20,000 cps)" (*Ibid.*, pp. 108-109).

[30] D. Crystal, *Prosodic Systems...*, cit., p. 173. The two quotations in italics have been adapted by the Author from: M. Schubiger, *English Intonation, its Forms and Function,* Max Niemeyer, Tübingen 1958, p. 4.

Chapter 2
ENGLISH INTONATION: AN INTRODUCTION

The role of intonation in language is a subject of considerable controversy. Some linguists consider it a secondary aspect of language, which is strictly related to the speaker's attitude towards what he/she is saying. Others believe it to be a central part of each communicative oral performance, sometimes indicating grammatical, semantic, or functional distinctions.

There is also disagreement also concerning the elements which make up intonation. Greg Deakin underlines the fact that:

> For some linguists intonation is basically the pitch movement which is natural part of speech and is often used clearly 'meaningful'. However, the word 'intonation' is often used more loosely to indicate 'rhythm', 'loudness', 'tempo', 'syllable length', 'pause' and 'voice quality', all of which can clearly be 'meaningful' under the right conditions; that is, 'intonation' often refers to what some linguists would insist should be called 'suprasegmental phonology', 'non-segmental phonology', or 'prosodic features'[1].

In this work, 'intonation' is referred to as the *linguistic use of pitch in utterances*, or the rise and fall of the pitch of the voice in spoken language[2]. The main components of each intonational realization are:

[1] G.T. Deakin, *Indirect Speech Acts and Intonation,* M.A. Thesis, The Australian National University, Camberra 1981, p. 28.
[2] P. Tench, *The Intonation Systems of English,* Cassell, London 1996, pp. 2-3.

1. *pitch,* the essence of intonation;
2. *linguistic use,* excluding other uses of pitch (such as singing) and any "aesthetic evaluations about how 'nice' or 'pleasant' an accent's intonation is";
3. *utterances,* expressed in their oral form, whose pitch variation contributes to the meaning of a text[3].

Because of the importance of 'intonation' in this sense, it has been necessary to survey critically the intonational literature of the past centuries and state clearly:

i) why intonation has been studied since the sixteenth century;
ii) how it was studied;
iii) what these studies brought to;
iv) where the roots of the contemporary distinction between British and American intonational studies may be found;
v) when the 'scientific' study of intonation was born;
vi) which evolution it had during the Twentieth century.

This study has been carried out through all the issues raised by the literature here considered. Therefore, the organization of what follows does not mirror the order of the six points listed. However, the six *wh-questions* posed will be the main general reference for the chapters which follow.

2.1. *Historical background to intonational studies*

The study of English intonation started in the sixteenth and seventeenth centuries in manuals of pronunciation, became common in the eigtheenth and nineteenth centuries manuals of elocution and finally ended as an important part of twentieth-century phonetics. The bibliography for this subject will be discussed in the last two chapters (*Chapter Four: British Historical Foundations; Chapter Five: American Historical Foundations)*, where the historical background to intonational studies will be widely treated.

[3] *Ibidem.*

In the sixteenth and seventeenth centuries John Hart, George Puttenham, and Charles Butler[4] related intonation to punctuation: the latter one, for example, recognized the existence of four tones – which would be described nowadays as *level, fall, extra-low and rise* – and three degrees of pause, expressed with punctuation (comma, semi-colon, colon, full-stop, question mark, and exclamation mark).

Eighteenth-century British elocutionists started the very first descriptions of intonation in their manuals for public speaking. Outstanding among them was John Walker[5], who developed a 'theory of inflexions' involving five *slides:* rising, falling, fall-rise, rise-fall, monotone. He was the first to use some tone marks (´ ` ¯ ^). His description of intonation is astonishingly modern.

In the nineteenth century the elocutionary manuals burgeoned both in America, where the most influential work was that of James Rush[6], and in Great Britain, where a vast quantity of books was written on this subject.

In the early part of the twentieth century Daniel Jones[7] dominated the studies of English phonetics in Great Britain. He was the first to use the newly-invented phonograph to listen to short periods that he then transcribed on a sheet. His interlinear transcriptions (a continuous intonation curve between two lines) recorded two basic patterns, known as Tune 1 and Tune 2. This sort of analysis was fully codified by Armstrong and Ward[8] and continued to be used especially in pedagogical works on English for many years afterwards. During the same decades, Henry Sweet theorized the existence for the English language of three 'primary intonations' (level, rising, and falling) and two 'compound intonations' (compound rising and compound falling) and Harold Palmer introduced the terms 'nucleus', 'head', and 'tail'.

[4] J. Hart, *An Orthographie, Conteyning the Due Order and Reason, Howe to Write or Paint Thimage of Mannes Voice, Most Like to the Life or Nature* (1569), Scolar Press, Menston 1969; C. Butler, *Charles Butler's English Grammar* (1634), Niemeyer, Halle 1910; G. Puttenham, *The Art of English Poesie (1589),* E. Arber, Westminster 1895.

[5] J. Walker, *The Melody of Speaking, Delineated,* cit.

[6] J. Rush, *The Philosophy of the Human Voice*, cit.

[7] D. Jones, *Intonation Curves,* Teubner, Leipzig 1909; D. Jones, *An Outline of English Phonetics,* Cambridge University Press, Cambridge 1918.

[8] L.E. Armstrong, I.C. Ward, *Handbook of English Intonation,* Teubner, Liepzig/Berlin 1926.

At the beginning of the twentieth century the opposition between musical and oral intonation had not yet been explained: in 1902 Edward Wheeler Scripture used *intonation* as a synonym of *melody*[9] and in the chapter entitled *Melody* he stated that the melody of speaking had to be studied together with the melody of song. Nevertheless, half-way through the century the first modern and systematic intonational study was published by the American Kenneth Pike, who gave birth to a new approach to the analysis of prosodic features. After the publication of his *Intonation of American English*[10] in 1945, we can speak of two different trends of English intonational studies, later on called the British and the American schools of intonation.

2.2. *British intonational studies*

The main features of the British tradition, including some important divergences between the different writers, are summarized well in the volume *Prosodic Systems and Intonation in English* by David Crystal[11]. Crystal's main intention is to develop an adequate and comprehensive system for the description of *all* intonational phenomena in English: the emphasis is phonetic and phonological, rather than grammatical or semantic. *Pitch contours* are basic to the understanding of intonation. Therefore, before recognizing different degrees of falling intonation, the listener should recognize them as *falling;* similarly with rising, falling-rising, rising-falling, etc. The gliding pitch movement that characterizes the basic tone marks the main point of prominence until the next tone occurs. Thus, speech is divided into *tone-units* which, from the intonational point of view, are the basic elements of connected speech. Each tone-unit has one peak of prominence on the tone, or a major and a minor peak of prominence if the tone is 'divided'[12]. The smallest unit which makes a tone-unit consists of a syllable, carrying a glide of a par-

[9] E.W. Scripture, *The Elements of Experimental Phonetics*, E. Arnold, London 1902.
[10] K. Pike, *The Intonation of American English*, cit.
[11] D. Crystal, *Prosodic Features and Intonation in English*, cit.
[12] Basically, compound tones involve a 'bi-nuclear' or 'divided' nuclear pitch movement within a single tone-unit, and a major or a minor peak of prominence as a consequence.

ticular kind: this is called in the British tradition the *nucleus*[13]. The tone-unit may consist of three other segments:

1. *The head.* It consists of an unspecified number of stressed and unstressed syllables which go from the first stressed syllable (called *onset)* to the nuclear tone.
2. *The pre-head.* Called also the *pre-onset,* it precedes the onset syllable within the same tone-unit. It consists of one or more syllables of an unspecified number.
3. *The tail.* It consists of one or more syllables of an unspecified number following the nuclear syllable and usually continuing the pitch movement until the end of the tone-unit.

This internal division of the tone-unit is the one most commonly made in the British tradition and it is exemplified in fig. 2.1.

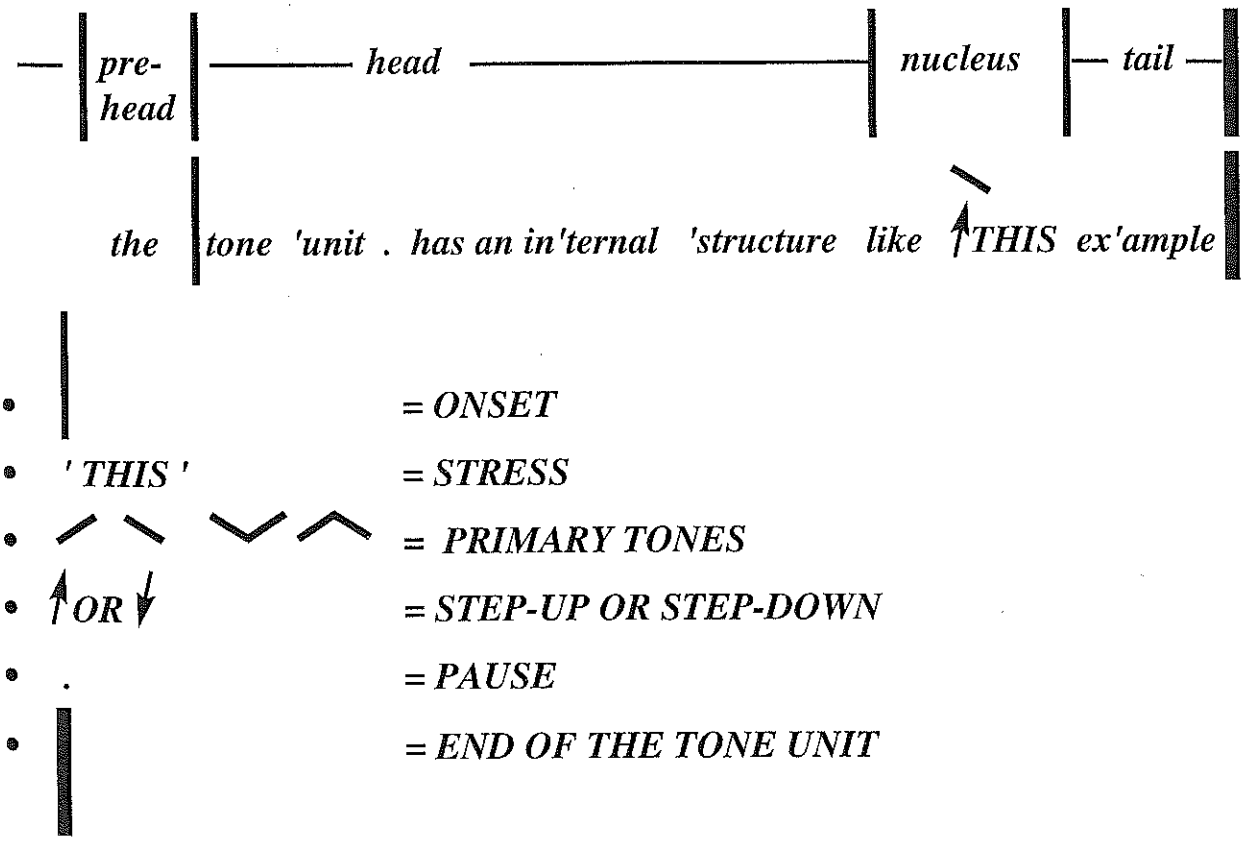


Fig. 2.1. - CRYSTAL'S INTONATIONAL SYSTEM

[13] *Ibid.*, p. 207: "The presence of a nucleus is what accounts for our intuition of 'completeness' at the end of the unit: if it is omitted, the auditory effect is one of 'being cut short'".

Halliday makes a simpler division, exemplified in fig. 2.2.

/ / 1 ^ the / tone / group / ^ has an in/ternal / structure like /<u>this</u> ex/ample/

- **//** = **TONE-GROUP BOUNDARIES**
- **/** = **PROMINENT SYLLABLES (usually stressed)**
- **<u>THIS</u>** = **NUCLEUS**
- **1** = **FALLING**
- **^** = **SILENT BEAT**

Fig. 2.2.- HALLIDAY'S INTONATIONAL SYSTEM

Writers in the British tradition generally recognize a class of *compound tones*, but unfortunately there is some disagreement as to their number and their definition. Crystal recognizes two types (falling-rising and rising-falling), Hallyday two closely related types (tone 13 = *one three,* i.e. falling tone + level tone; and 53= *five three,* i.e. rising-falling + level tone), whereas Kingdon twenty-six (fig. 2.3)[14].

[14] *Ibid.*, p. 218; M.A.K. Halliday, *A Course in Spoken English: Intonation,* Oxford University Press, London 1970, p. 12; R. Kingdon, *The Groundwork of English Intonation,* Longmans, Green & Co., London 1959, pp. 123-130.

LEVEL TONES

- **HL = high level tone**
- **LL = low level tone**

KINETIC TONES

- **IH = tone I High (HIGH RISING)**
- **IL = tone I Low (LOW RISING)**
- **II = tone II (FALLING)**
- **III = tone III (FALLING-RISING)**
- **IV = tone IV (RISING-FALLING)**
- **V = tone V (RISING-FALLING-RISING)**

COMPOUND TONES

1. IH + IH
2. IL+IL
3. IL + II
4. IL + III
5. II + IH
6. II + IL
7. II + II
8. II + III
9. III + II
10. III + III
11. IV + IH
12. IV + ILE*
13. IV + II
14. IV + III
15. V + II
16. V + III
17. IL + IV
18. II + IV
19. III + IV
20. IV + IV
21. V + IV
22. IL + V
23. II + V
24. III + V
25. IV + V
26. V + V

E*= *emphatic*

Fig. 2.3. - KINGDON'S INTONATIONAL SYSTEM

The lack of a well-defined theory of intonation unfortunately has led in some cases to an 'ill-defined terminology'[15]. There is sometimes con-

[15] The expression is borrowed from D. Crystal, *Op. Cit.*, p. 40.

fusion as to whether a writer is talking in phonetic or phonological terms, and definitions of the basic concepts are in some texts inadequate. To make the subject clearer, it will be necessary to explore the first 'scientific' studies on English intonation, which will be treated in Chapters Four and Five of this volume.

As an introduction, it will be said that the nineteeth century was dominated by the name of the Bell family. Alexander Bell and his two sons, David Graham and Alexander Melville, wrote books on phonetics, all of which treated also of prosody. Alexander Melville, known for his *Visible Speech*[16], was the most innovative. He was the first to make an unambiguous link between accent and an inflexion starting from that accent. However, his basic division between rising and falling inflexion reminds us of Walker's analysis; the method of transcription used by Bell is an adaptation of Walker's method, too.

The link from Bell to the twentieth century was provided by Henry Sweet[17], Bell's best follower. Sweet was initiated into phonetics by him, and followed him in most of what he said about intonation.

The approach of Bell was taken up again by Harold Palmer[18], who called *nucleus* the syllable of maximum prominence and the beginning of the 'nucleus tone', *head* (inferior, superior, scandent, and heterogeneous) the pre-nuclear syllable or syllables, and *tail* the group of syllables following the nucleus. His 'nuclear tone approach' became the foundation of almost all the intonational works produced in Great Britain during the twentieth century: from Kingdon to O'Connor and Arnold to Halliday and Cruttenden[19] most recently, the so-called *British school of intonational studies* chose to describe intonation in terms of *tone-units, nuclei,* and *nuclear tones.*

[16] A. M. Bell, *Visible Speech,* Simpkin and Marshall, London 1867.
[17] H. Sweet, *A Handbook of Phonetics,* Clarendon Press, Oxford 1877.
[18] H.E. Palmer, *English Intonation with Systematic Exercises,* Heffer, Cambridge 1922.
[19] R. Kingdon, *Op. cit.*; J.D. O'Connor, G.F. Arnold, *Intonation of Colloquial English: A Practical Handbook,* Longmans, London 1961; M.A.K. Halliday, *A Course in Spoken English: Intonation*, cit..

2.3. *American intonational studies*

James Rush, with *The Philosophy of the Human Voice (1827),* was the first American scholar to make a systematic study of intonation: he recognized the importance of the final pitch movement - foreshadowing later American concern with terminals - and defined utterances as 'inexpressive' and 'expressive'.

Apart from Rush's work and the descriptive tradition developed by elocutionists, little was written on the nature and function of intonation, until Leonard Bloomfield[20]. He was the first to apply the techniques of segmental phonemic analysis to intonation and he considered intonation a kind of *modification,* that is:

> the length of time through which a sound is continued; the loudness with which it is produced; the musical pitch of the voice during its production; the position of organs not immediately concerned in the characteristic action; and the manner of moving the vocal organs from one characteristic position to another[21].

Intonation and stress phenomena are secondary for Bloomfield, who noted the existence of an unclear boundary between these two 'secondary, non-distinctive' patterns. However, the status of these 'phonemes' is not made clear:

> We use features of pitch very largely in the manner of gestures, as when we talk harshly, sneeringly, petulantly, caressingly, cheerfully, and so on. In English pitch is the acoustic feature where gesture-like variations, non-distinctive but socially effective, border most closely upon genuine linguistic distinctions[22].

After Bloomfield, the early work of Bloch and Trager produced one of the most rigorous theories of prosodic structures yet to be proposed[23], together with Pike's *Intonation of American English.* Both works analysed pitch contours into sequences of four pitch *levels* and three pitch *terminals*

[20] L. Bloomfield, *Language,* Holt, New York 1933 (esp. Chapter Seven).
[21] *Ibid.,* p. 109.
[22] *Ibid.,* p. 114.
[23] B. Bloch, G.L. Trager, *Outline of Linguistic Analysis,* Special Publications of the Linguistic Society of America, Baltimore 1942.

and considered levels and terminals to be the 'phonemes' of prosody, and sequences of levels followed by terminals to be the 'morphemes'. Pike was very concerned with the meanings of such sequences, whereas Trager and Smith were more concentrated on the procedures which produced the system. The latter were, however, very influential and their analysis was used in many American textbooks of linguistics and the English language for almost twenty years after the publication of their book.

Pike's analysis is simpler than Crystal's or Halliday's, in that every prominent syllable is reckoned to contain a 'primary contour', while the non-prominent syllables preceeding it are reckoned to constitute a 'pre-contour'. Therefore, Pike makes no distinction between head and nucleus; any pitch movement in the head is treated in the same way as the primary pitch movement in the nucleus. Indeed, a stressed syllable in the head with no appreciable pitch movement is treated in the same way as the primary pitch movement in the nucleus, except that its pitch movement will be 'level'. Pike's intonational analysis has been synthesized as in fig. 2.4.

The arbitrariness of having four levels eventually led to a new approach based on only two levels, proposed by Janet Pierrehumbert[24]. This remains the dominant approach in the U.S.A. today and its influence has also spread wider. Nevertheless, the so-called 'nuclear approach' continues to be taught in Britain.

pre-contour	*primary contour*	*pre-contour*	*primary contour*	*pre-contour*	*primary contour*
the utterance /		**is di vided**		**into contours / /**	
3- °2- -4		**3- °2- 4**		**2- °1- -4**	

- **°** = **ONSET of a primary contour (always stressed)**
- **/** = **TENTATIVE PAUSE**
- **//** = **FINAL PAUSE**
- **1,2,3,4** = **LEVELS**

Fig. 2.4. - PIKE'S INTONATIONAL SYSTEM

[24] J.B. Pierrehumbert, *The Phonology and Phonetics of English Intonation,* Indiana University Linguistic Club, Bloomington 1987.

Chapter 3
INTONATION TRANSCRIPTIONS FOR THE ENGLISH LANGUAGE

There is no way of 'writing about' intonation without 'writing intonation' itself, without 'recording' it on a sheet or on a surface by means of letters or other symbols. But how can we write about something which cannot be written?

Daniel Hirst selected twenty different transcriptions for the sentence 'Peter, a cup of coffee, or tea, or something stronger?' (Fig. 3.1)[1]: each one corresponds to the method chosen by one author or one 'school'. In some cases, a profound knowledge of the theory which is behind the transcription is necessary to apply the correct intonation to the sentence. This is particularly true for almost all the 'American transcriptions' (see n. *e, f, j),* but also for some of the recent 'British transcriptions' (see for instance *n,* Halliday's example).

[1] D. Hirst, *The Transcription of English Intonation,* in P. Léon, M. Rossi eds, *Problèmes de prosodie. Approches théoriques (Hommages à Georges Faure),* Studia Phonetica 17, Didier, Ottawa 1979, pp. 29-39. Fig. 3.1 is taken from *Ibid.,* p. 39.
The bibliography related to Fig. 3.1 is given in *Ibidem*: W.S. Allen, *Living English Speech,* Longmans, London 1954; D.L. Bolinger, *Intonation and Analysis,* "Word", 5, 1949, pp. 248-254; D.L. Bolinger, *A Theory of Pitch Accent in English,* "Word", XIV/2, 1958, pp. 109-149; V. J. Cook, *Active Intonation,* Longmans, London 1968; D. Crystal, *Prosodic Systems...,* cit.; G. Faure, *Recherches sur les caractères et le rôle des éléments musicaux dans la prononciation anglaise,* Didier, Paris 1962; R. Gunter, *Intonation and Relevance,* in D.L. Bolinger ed., *Intonation. Selected Readings,* Penguin, London 1972, pp. 194-215; M.A.K. Halliday, *Intonation in English Grammar,* "Transactions of the Philological Society", 1963, pp. 143-169; M.A.K. Halliday, *Intonation and Grammar in British English,* Mouton, The Hague 1967; M.A.K. Halliday, *A Course in Spoken English: Intonation,* cit.; D. Hirst, *A Distinctive Feature*

a)	Peter˅	a cup of coffee/	or/tea	or something stronger\
b)	↗Peter	a¯cup of/coffee	or/tea	or¯something\stronger
c)	'Peter↗	a 'cup of coffee↗	or tea↗	or 'something stronger↘
d)	Peter	a cup of coffee	or tea	or something stronger
e)	Peter °2-4-3	a cup of coffee 3-°2- -2 °4- -3	or tea 3- °4-3	or something stronger 3- °2- -2 °3- -4
f)	3Pe1ter2	2a 3cup of 1coffee2	2or 1tea2	2or 3something 2stronger1
g)	\Peter↓	a¯cup of-coffee↑	or/tea↑	or¯something\stronger‖
h)	˅Peter	a 'cup of/coffee	or/tea	or 'something\stronger
i)	P e t e r	a cup of coff e e	or t e a	something or str o nger
j)	3Pé1ter2 ‖	2a 3cûp of 1cóffee2 ‖	2or 1teá2 ‖	2or 3sômething 2stróng̀er1 #
k)	˅PETER|	a ' cup of/COFFEE|	or/TEA|	or 'something\STRONGER|
l)	˅Peter|	a|cup of / coffee|	or / tea|	or|something\stronger|
m)	˅Peter|	a 'cup of/coffee|	or/tea|	or 'something\stronger|
n)	//4 Peter	//3^a /cup of /coffee	//3ʌ or /tea	//1^or /something /stronger//
o)	Péter/	a cup of coffee/	or tea/	or something stronger
p)	˅Peter/	a °cup of/coffee /	or/tea /	or°something\stronger/
q)	|PĚter|	a|cup of CÓFFee ‖	or TÉA|	or|something STRÒNGer|
r)	3PETER1↓	2a 3cup of 1COFFEE2 ↓	2or 1TEA2 ↓	2or 3something 2STRONGER1 ↓
s)	°Peter +	a 'cup of °coffee +	or °tea+	or 'something °stronger//
t)	|P̆eter|	a 'cup of cóffee |	or téa |	or 'something stròng̀er

a) SWEET, 1878
b) PALMER, 1922
c) SCHUBIGER, 1935
d) PIKE, 1945
e) PIKE, 1945
f) WELLS, 1945
g) FAURE, 1948, 1962
h) KINGDON, 1948, 1958
i) BOLINGER, 1949, 1958
j) TRAGER & SMITH, 1951
k) ALLEN, 1954
l) LEE, 1960
m) O'CONNOR & ARNOLD, 1961
n) HALLIDAY, 1963, 1967, 1970
o) LIEBERMAN, 1967
p) COOK, 1968
q) CRYSTAL, 1969; QUIRK et.al., 1972
r) GUNTER, 1972
s) HIRST, 1974, 1976, 1977c.
t) LEECH & SVARTIK, 1975.

Fig. 3.1. - ENGLISH AND AMERICAN TRANSCRIPTIONS
Source: D. Hirst, *The Transcriptions of English Intonation (1979), p. 39*

Analysis of English Intonation, "Linguistics", 169, 1976, pp. 27-42; D. Hirst, *Intonative Features: a Syntactic Approach to English Intonation,* Mouton, The Hague 1977; R. Kingdon, *The Teaching of English Intonation,* "English Language Teaching", 2, 1948, pp. 85-91, 113-121;

3.1. *Basic requirements for a 'good' intonational transcription*

Dealing with intonation does not mean studying a single, coherent system of contrasts, but with what Crystal called *a system of prosodic systems,* interacting to different ways and in different degrees[2]. It is therefore particularly difficult to chose *one* way of transcribing intonation. The adequacy of the method to the intonational model adopted and the clearness of the symbols used are always essential.

The system must be easy to read, even for those with no particular background in intonational phenomena. Nevertheless, it should be detailed enough to account for significant semantic contrasts. Any important functional distinctions must be clearly stated to allow a quick reference and ready comparison. Moreover, every transcription should also indicate accent, rhythm, stress, pauses and any other necessary prosodic features.

In all the transcriptions which will be analysed, pitch movement will predominate overwhelmingly. At least seven different kinds of transcriptions are possible[3]:

1. *Musical notation.* From Steele, to Raymond and his American contemporaries, to Fónagy, this method has been occasionally used but it is inadequate as a method representing spoken speech.
2. *Pitch movement transcription by lines and dots.* The method has been used in the British tradition, especially by Jones and Crystal. It

3, pp. 11-19, 146-152; R. Kingdon, *The Groundwork of English Intonation,*cit.; W.R. Lee, *An English Intonation Reader,* MacMillan, London 1960; G. Leech, J. Svartvik, *A Communicative Grammar of English,* Longmans, London 1975; P. Lieberman, *Intonation, Perception and Language,* M.I.T. Press, Cambridge Mass. 1967; J.D. O'Connor, G.F. Arnold, *Intonation of Colloquial English,* Longmans, London 1973; H.E. Palmer, *English Intonation with Systematic Exercises,* Heffer, Cambridge 1922; K. Pike, *Intonation...,* cit.; R. Quirk et alii, *A Grammar...,* cit.; M. Schubiger, *The Role of Intonation in Spoken English,* cit.; H. Sweet, *Handbook of Phonetics,* Clarendon Press, Oxford 1877; G.L. Trager, H.L. Smith, *An Outline of English Structure,* Washington American Council of Learned Societies, Washington 1951; R.S. Wells, *The Pitch Phonemes of English,* "Language", 21, 1945, pp. 27-39.

[2] D. Crystal, *Op. cit.*, p. 204.

[3] The list is adapted from: G.T.A. Deakin, *Indirect Speech Acts and Intonation,* M.A. Thesis, The Australian National University, Camberra 1981, pp. 93-97.

provides an easy-to-read representation of the relation between pitch movement, stress and rhythm.

3. *Pitch movement transcription by tonetic marking.* The traditionally British intonational transcription (see fig. 3.2) has been widely used and it is still considered the most economical means of quick representation.
4. *Pitch level transcription by lines drawn over the text.* It is probably the most commonly used contemporary method, also with a pedagogic aim. However, it is often misleading because it gives no representation of rhythm and stress; the continuous line may give undue prominence to the unstressed parts of a sentence.
5. *Pitch level transcription by numerals.* It is generally referred to as 'the American intonational transcription'. The method requires some practice and it is rather difficult for the uninitiated to read.
6. *Pitch movement transcription by text offset typographically vertical.* In spite of being frequently adopted, Bolinger's method is very difficult to reproduce.
7. *Pitch movement transcription by a system of numbered 'tones'.* This is the method adopted by Halliday. Its advantage is that it readily identifies the important pitch movements that are used to make semantic distinctions.

This list does not include the most recent methods of intonation transcription. In particular, it does not consider all those methods which are not suitable for pedagogic intents. For example, a description of *spectrographic traces* is an invaluable aid to intonational analysis but cannot be considered a useful method of representation to teach a foreign language: untrained readers would find them very difficult to interpret because they contain too many phonetic details. One of the greatest teachers of intonation transcription for pedagogic aims was Daniel Jones. Therefore, his suggestions will deserve at least a brief analysis.

3.2. *Learning how to transcribe intonation*

In 1909, when Daniel Jones started writing about English intonation in the book *Intonation Curves*[4], he was conscious that intonation had not "*hitherto met with adequate treatment in books on pronunciation,* owing to the want of a satisfactory method of indicating these variations". At that time he looked for a simple and clear description and 'transcription' of the intonation contours and criticized his ancestors' too complicated *accurate records*[5]. Ten years later, in *An Outline of English Phonetics,* he still insisted on the fact that

> accurate curves [..]have scientific value, but their usage in practical language teaching is limited, since they only record what is objectively present. To get good results in practical teaching it is necessary to have regard continually to the intonation *aimed at*, i.e. the intonations which are *subjectively* present to the speaker. These often differ considerably from the objective intonations actually employed[6].

By *objective intonation* Jones referred to the pure physical qualities of this prosodic feature, whereas by *subjective intonation* he meant the speaker's performance at the intonational level.

It is the *subjective side of intonation* which makes the entire intonational phenomenon so difficult to be described. In terms of 'transcription' then, great care should have been taken to render the 'curves' as accurate as possible. Jones reminded his Reader of the fact that

> it is not claimed that the curves are absolutely *accurate*, like those obtained by measuring vibrations. In fact in the method here used there are several obvious sources of error. Such inevitable errors are however very slight and *are of no consequence from a practical point of view* (my italics)[7].

[4] D. Jones, *Intonation Curves,* cit.

[5] *Ibid.*, p. IV.

[6] Id., *An Outline of English Phonetics*, cit., p. 326. In the same book he wrote about *Experimental Methods:* "The apparatus used in elementary experimental phonetics includes the artificial palate, the phonetic kimograph, the laryngoscope, X-ray photography, sensitive flames, tape recorders and other reproducing machines. In more advanced work use is made an apparatus for enlarging the curves on records, cathode ray oscillographs, harmonic analysers, spectrographs and much other apparatus. It is not necessary for the purposes of this book to say much about experimental methods, beyond giving palatograms of various sounds" (*Ibid.*, p. 17).

[7] *Ibid.*, p. X.

Imperfect though his method might be, Jones was sure that his possible errors would be immeasurably more than counterbalanced by the advantage of having long and easy legible texts not occupying an inordinate amount of space, coupled with curves on a scale which would have been familiar to everyone: this arrangement may be helpful not only to phonetic specialists, but also to teachers of languages and teachers of elocution[8].

Supported by his convictions, he chose to adopt a musical notation, both in *Intonation Curves* and in the two first editions of *An Outline*[9]. In *Intonation Curves*, in particular, his notation was applied to three long texts in three different languages (English, French, and German)[10]. Here it is the description of how he worked:

> If while a gramophone record is being played the needle is lifted from the revolving disc, the ear retains the impression of the sound heard at the instant when the needle is lifted. If the record is of the speaking voice and the needle is removed in the middle of a voiced sound, the ear retains in particular the pitch of the musical note which the voice is producing at that instant; this may be marked on some kind of musical stave. By taking observations at a large number of points in a sentence and joining the points by lines, a complete intonation-curve of the sentence results[11].

Certain small inaccuracies were unavoidable with this method, although it had the advantage that while a considerable degree of scientific accuracy was attained, yet "*the resulting curves [were] such as can*

[8] *Ibidem.*

[9] Jones's book has seen nine editions: the first was published in 1918, the last in 1960. We are referring here to the first edition. The third edition (Teubner, Leipzig 1932) had new pages and was modified especially in chapter XXXI (on intonation); the seventh edition (Teubner, Leipzig e Heffer, Cambridge 1949) contains a new chapter on American pronunciation; the eighth (Heffer, Cambridge 1956) is enriched by twenty new pages on the *Types of Phonetic Transcription.*

[10] The recorded passages are: *Passage from Shakespeare's Richard II, Poe's The Bells, Conversation from Langenscheidt's English, Passage from Rostand's La Samaritaine, Lafontaine's Le Corbeau et le Renard, and Le Loup et l'Agneau, Conversation from Barlet and Rippman's French Life and Ways, Passage from Schiller's Wallenstein, Passage from Goethe's Faust.*

[11] D. Jones, *An Outline...*, cit., p. 325.

be made use of without difficulty in practical language teaching"[12]. The phonetic text resulted to be continuous (not irregularly spaced as in the case of the most accurate curves), and the ordinary musical stave made the values of the curves clear enough to anyone who had an elementary knowledge of music.

3.3. *Intonation transcription: recording or analysing an utterance?*

The principles on which intonation transcription is based in Jones's approach were pedagogic. The use of his transcriptions had by no means to be confined to phoneticians or specialists. He proposed a way of 'recording' English oral texts in order to reproduce them in an effective way.

Most notations for pitch variation are based on the same principles as Jones's. They are basically iconic, which could seem a simple matter for this dynamic feature. A mark which is higher than another in the line of writing represents a higher pitch. A continually varying line, for example (which disregards the momentary breaks in voicing), can be drawn either over or under the segmental symbols, like in the following example created by Jones[13]:

Paving stones.

A plough boy, who had spent all his life in the country, was sent on a

Of all iconic representations of pitch variation, the most effective consists of arraging the segmental symbols, or the letters of the ordinary spelling, so that they themselves form the iconic line of rise and fall in pitch. The example is taken from Bolinger[14].

[12] *Ibidem.*
[13] D. Jones, *Phonetic Readings in English,* Winter, Heidelberg 1956, p. 34.
[14] D. Bolinger, *Intonation and Its Uses,* Arnold, London 1989, p. 22.

hó

I want to go

m

e

The text follows typographically the intonational contour to represent pitch movement. The method is fairly common nowadays but it is extremely difficult to reproduce.

Types of notation such as these are direct representation of the pitch fluctuation; they reveal no phonological analysis. In other words, *they are impressionistic, not systematic.*

A notation for speech melody should reflect an analysis. Different analysis are possible of speech melody patterns and these differences are naturally reflected in notation. The two main trends of analysis are represented by the British School of intonational studies and the American one: the two schools have produced transcriptions based on pitch-level elements and transcriptions based on pitch-movement elements respectively. In the first case, the result is the kind of transcription described in Fig. 3.2. In the second case, the elements can be represented either by conventional symbols or by iconic symbols. They can be given numbers, for example, which can be written over the syllables (the higher the number, the higher the pitch), or they can be represented in a way which is more immediately iconic (Fig. 3.7).

I \knew she wouldn't /do it
I'm \longing to see your new /coat
Do you \have to be so /stubborn?
\When will you learn to keep your /mouth shut?
\Please sit /down

Fig. 3.2. - INTONATION TRANSCRIPTION BASED ON PITCH-LEVEL ELEMENTS (British School)
Source: A. Cruttenden, *Intonation (1997)*, p. 100

3.4. *A brief survey of English intonation transcription*

In order to close this survey of methods and ways of transcribing intonation, it is necessary to underline the historical role of notation in the evolution of intonational studies. Historically, notation came before the full development of the subject, and there is a long history of experiments, going back for centuries, in attempting to find the 'best' notation.

Punctuation was the first attempt at producing a kind of rough intonation transcription. John Hart was a pioneer in the field, as will be shown in *Chapter Four.* From the sixteenth century on, the British approach to the study of intonation evolved, and the methods of transcription adopted by the scholars through the centuries provide evidence of this evolution.

Throughout the eighteenth and nineteenth centuries, 'musical transcription' became usual in order to record prosodic features. 'Unscientific' though the method is, it was used as the only way to 'record' melody in a written form. Both Great Britain and the United States produced a lot of 'musical' transcriptions of prosodic features (see figg. 3.3-3.4). In these examples, oral speech moves up and down the musical scale by slides, the intervals between syllables being almost infinitesimal. Musical stave, time signature, and traditional musical indicators for rate, pause, pitch, and force are used here to record sounds and prosodic effects.

Are you go - ing there to-day?

I am go - ing there to-day.

Fig. 3.3. - NOTES ON A MUSICAL STAVE
Source: G.L.Raymond, *The Orator's Manual (1879)*

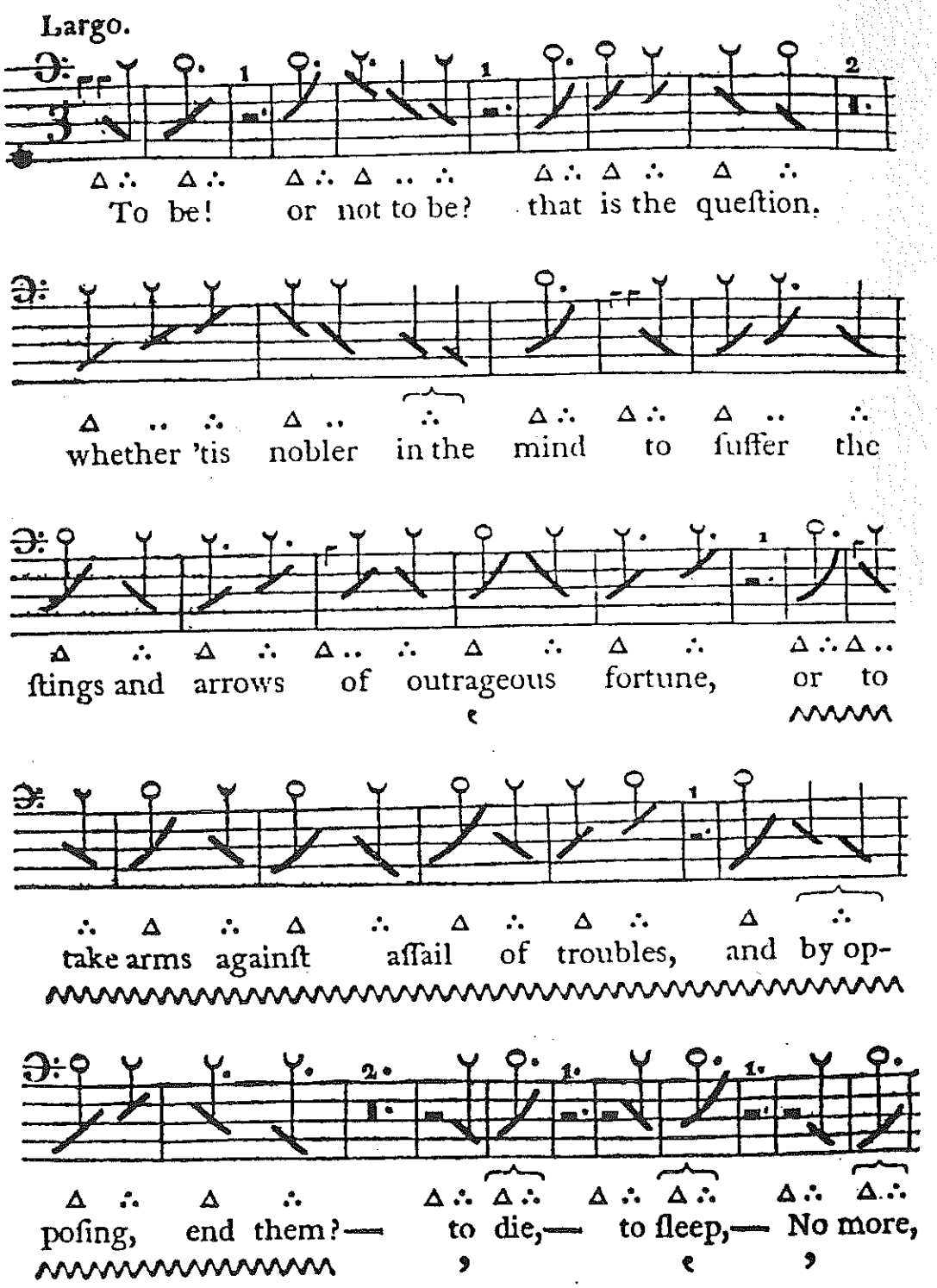


Fig. 3.4. - NOTES ON A MUSICAL STAVE
Source: J. Steele, *An Essay towards Establishing the Melody and Measure of Speech (1775)*

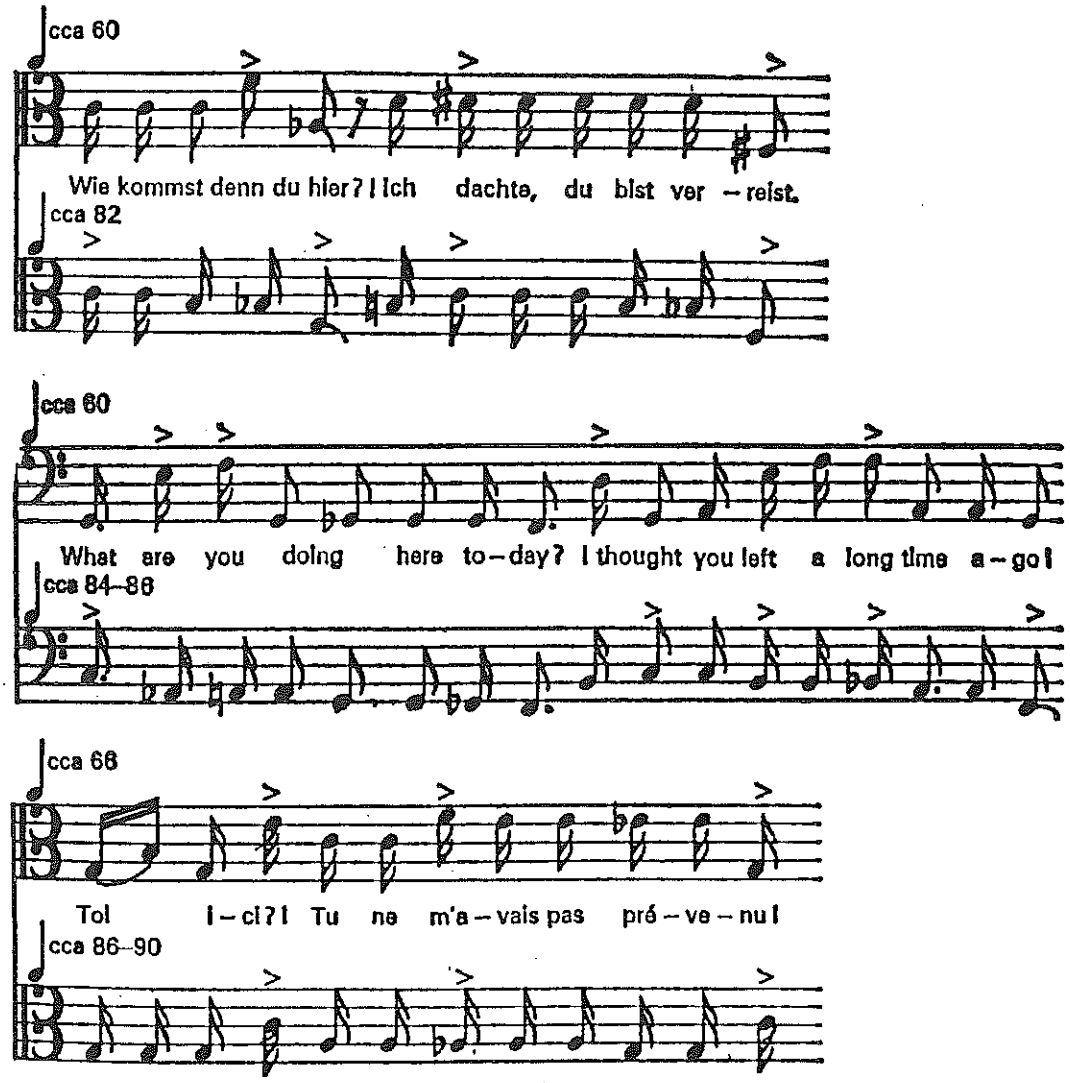


Fig. 3.5. - THE EMOTIONAL PATTERNS
Source: I. Fónagy, K. Magdics, *Emotional Patterns in Intonation and Music (1963)*

This method is no longer used nowadays. But the strong link between music and intonation is still subject of much controversy, especially as far as the emotional function of intonation is concerned. One example is given in a work by Fónagy and Magdics, dated 1963. According to the Authors, similar emotions or attitudes are bound to analogous melodies in languages not interrelated (fig. 3.5.):

> The musical signs of emotions may be considered as panchronic tendencies standing above languages and ages, which are realized according to the prevailing structure of the different languages[15].

At the beginning of the century, Daniel Jones introduced the so-called 'narrow' transcription of intonation. He used a continuous intonation curve between two lines, later on called 'interlinear tonetic transcription'. In this transcription the top and bottom lines represent the top and bottom of the speaker's pitch range and each dot corresponds to a syllable, the larger dots indicating stressed and/or accented syllables[16]. Each recorded version of an oral text may be 'read' on a musical stave. Phonetic transcription is also given (see Fig. 3.6).

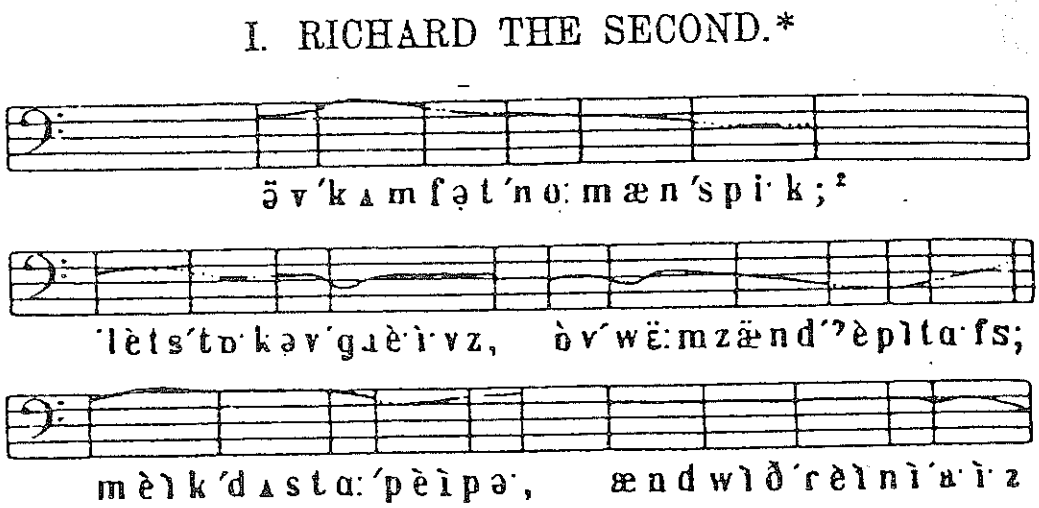


Fig. 3.6. - INTONATION MAY BE TAUGHT
Source: D. Jones, *Intonation Curves (1909)*

[15] I. Fónagy, K. Magdics, *Emotional Patterns in Intonation and Music,* in D. Bolinger ed., *Intonation. Selected Readings,* Penguin Books, Harmondsworth 1963, p. 302.

[16] For a discussion of the terms 'stress' and 'accent' see: D. Jones, *Intonation Curves,* cit., p. 13: "I shall use the term STRESS to mean 'prominence', however such prominence is achieved. The term ACCENT will be limited to prominences where pitch is involved (hence it is equivalent to PITCH ACCENT)".

The first modern and systematic analyses of American intonation were those of Pike, who analysed pitch contours into sequences of four pitch levels. Pitch levels are numbered from 4 (the lowest relative pitch) to 1 (the highest relative pitch). The beginning point of a primary contour is indicated by the symbol [°]. Single bars indicate a 'tentative pause'; double bars are used for a 'final pause'. In a later version (fig. 3.7), continuous or dotted lines replace numerals: pitch 4 is indicated by a line below the letters, pitch 3 by a line at the bottom of the letters, pitch 2 by a line at the top, pitch 1 by a line above them. The word representing the beginning point of a primary contour is underlined with a continuous line. Arrows at the end of the lines indicate that the sentence should run on.

The arbitrariness of the choice of four levels led to a new approach based on two levels, spearheaded by Pierrehumbert: according to her, the occurence of particular levels is more meaningful than the contours formed by the levels. In Fig. 3.8 the asterisks (called 'stars') indicate the level tones with which stressed syllables on the segmental tier are associated. In fig. 3.9, the vertical axis is F° (*fundamental frequency*), whereas the horizontal axis is *time*. The small arrows point to the region in the F° contour corresponding to the phoneme indicated; a tonal transcription is also given under the text and marked on the F° contour.

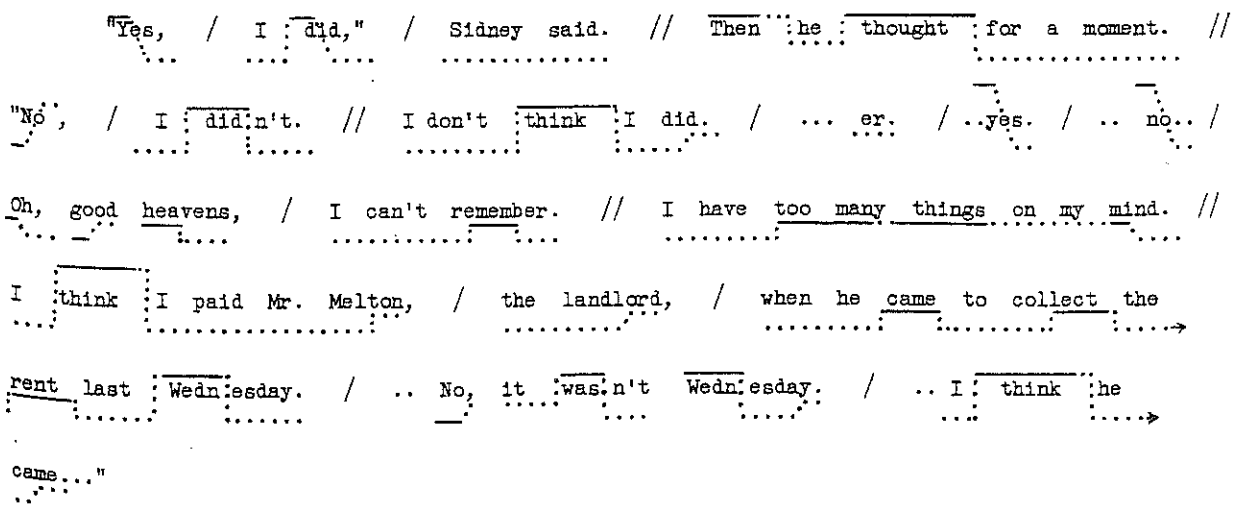
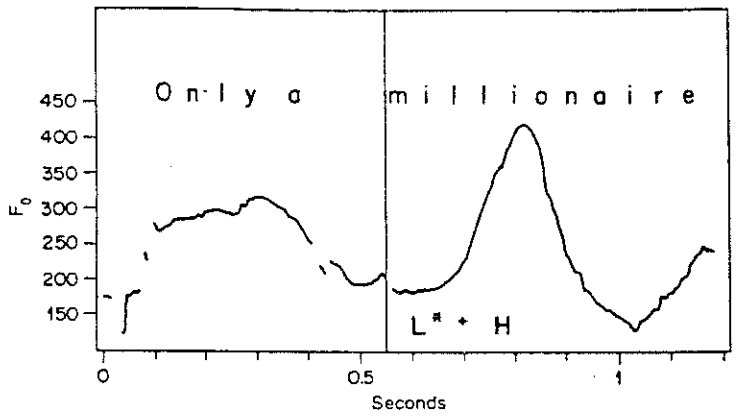
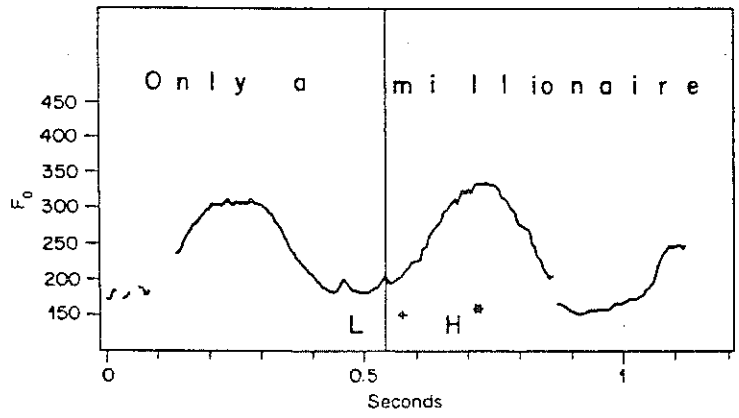


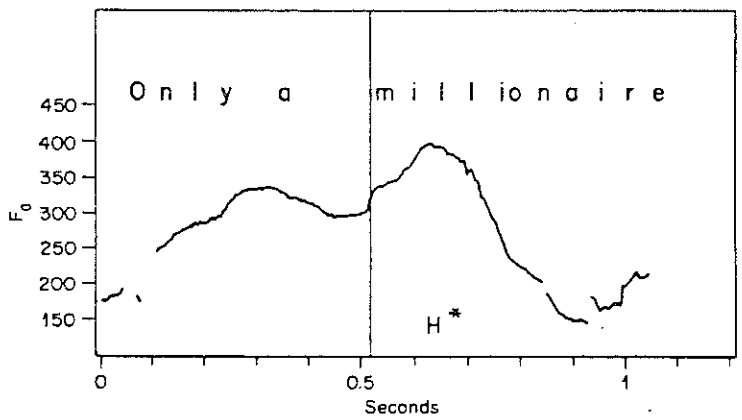
Fig. 3.7. - PIKE'S TRANSCRIPTION
Source: K. Pike, *The Intonation of American English (1945)*



Fundamental frequency contour of the phrase 'Only a millionaire' spoken with an intonation pattern which indicates incredulity or uncertainty (the L*+H pattern). The vertical cursor is placed at the [m] release in 'millionaire'.



Fundamental frequency contour of the phrase 'Only a millionaire' spoken with an L+H* intonation pattern. The vertical cursor is placed at the release of the [m] in 'millionaire'.



Fundamental frequency contour of the phrase 'Only a millionaire' spoken with a more neutral intonation (the H* pattern). The vertical cursor is placed at the [m] release in 'millionaire'.

Fig. 3.8. - TWO-LEVEL TRANSCRIPTIONS (a)
Source: J.B. Pierrehumbert, *The Phonology and Phonetics of English Intonation (1987)*

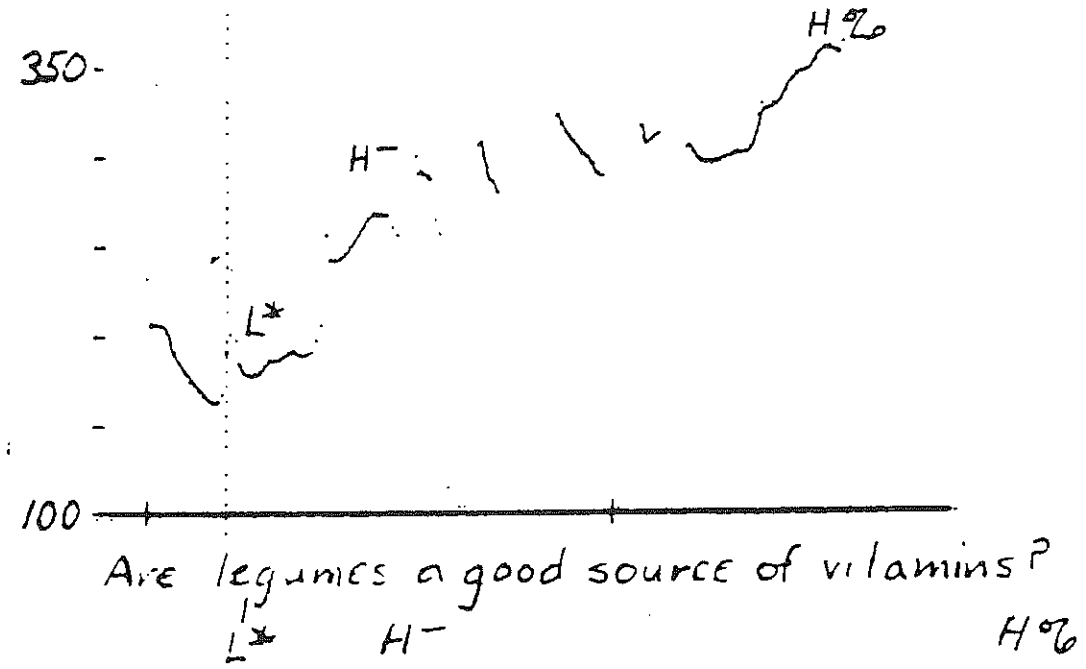


Fig. 3.9. - TWO-LEVEL TRANSCRIPTIONS (b)
Source: J.B. Pierrehumbert, *The Phonology and Phonetics of English Intonation (1987)*

Most methods for representing intonation have dealt with lines, dots, or numbers. Only in a few cases, 'alternative' methods have been adopted. This is the case of David Brazil, for example. A sample of his transcriptions is given here:

/r I've come to *see* you / p with the *rash* / r I've got on my *chin*/ p and under*neath* / r which has de*vel*oped / p in the past three *days* / r well it's *irr*itating / r and at *work* / r with the *dust* / r us being a *cloth*ing factory / r well I find it's *irr*itating / p makes me want to *scratch* it/

Fig. 3.10. – BRAZIL'S TRANSCRIPTION
Source. D. Brazil, *Discourse Intonation (1975)*

Between two bars there is a tone-group boundary, and italics indicate the nucleus of each group. 'p' means 'proclaiming tone'(falling) and 'r' means 'referring tone' (falling-rising). Fall-rise tone marks the matter of the tone-group as part of the shared, already negotiated, common ground occupied by the participants at a particular moment in an on-going relationship. Choice of falling tone, by contrast, marks the matter as new[17].

3.5. *Studying intonation and its historical foundations*

As the study of intonation transcription has widely demonstrated, work on intonation in the last decades has been concentrated on mapping the tones. This effort had to take account of different approaches:

a) *the syntactic approach:* the assignment of intonation-groupings and nucleus placement can be based on syntactic grounds, with readjustments rules from the discourse analysis;
b) *the semantic approach:* the semantics may be involved in a set of abstract meanings to be matched to the set of tones in an intonational lexicon;
c) *the pragmatic approach:* the pragmatics is involved in the choice of a tone and in the interaction between the abstract meanings of the tones and other levels of meaning (lexical, grammatical, gestural);
d) *the comparative approach* of the preceding areas to refine any kind of intonational typology.

If the different approaches are analysed more carefully, it will be easily recognised that they refer to a dual formal representation of any intonational performance: the representation by *contours,* supported by the British School, and the representation by *levels,* introduced by the American school. The great tradition of grammar and phonology which lies behind these different approaches has always been an aid and a drawback at the same time: an aid because it has demanded rigor and consistency, a drawback in that it has tempted one to see outlines that could be even too sharp. In phonology divisions are taken, largely, where they are found: when a distinction between *tip/dip, ban/pan/van* has to be made, a high level of agreement is attainable. Nothing so ready

[17] D. Brazil, *Discourse Intonation,* English Language Research, University of Birmingham, Birmingham 1975, p. 6.

to hand is found in intonation. In the history of intonational studies, scholars have tried their best to impose a structure, but they have often gone astray. Fortunately a certain consensus has always existed that one can look at such simple values as *high/low, up/down,* and that melodic shapes (contours, or levels) may be grouped around certain forms associated with the prominent syllable of an utterance.

The debate around the identification and classification of English tones has a long past. In considering the most recent definitions of English intonation, scholars and researchers must underline how these definitions have been derived in part from earlier works. British and American texts on the subject have been produced since the Sixteenth century. In order to understand the nature of the opposition between the traditional 'British' description of intonation in terms of *intonation contours* and the 'American' treatment of *intonation levels,* the first studies on English prosodic features will now be described.

Chapter 4
BRITISH HISTORICAL FOUNDATIONS

A comprehensive chronological review of the progress of knowledge in the field of English intonation would be almost impossible; nevertheless, some partial analyses have been proposed. Some important pages about early works on prosodic features have been written in *Prosodic Systems and Intonation in English* by Crystal, in *The Intonation of American English* by Pike, in *Intonation* by Cruttenden[1], and in almost all the most important recent books on intonation.

These reference books will be the foundations in order to trace the boundaries of a historical approach, which will outline the development of the main studies of intonation both in Britain (see this chapter) and in America (see the following chapter). A critical survey of the most relevant works, historically, will be introduced, together with the peculiarity of the British tradition vs the American tradition. Beginning with the earliest discussion on specific prosodic features in English during the sixteenth century, the chapter will follow the history of ideas through the centuries up to - and including - the works of the nineteenth and early twentieth century scholars on elocution, early phonetics and linguistics, and language teaching.

As for the British tradition, this chapter will follow the evolution of

[1] D. Crystal, *Prosodic Systems and Intonation in English,* cit.; K. Pike, *The Intonation of American English,* cit.; A. Cruttenden, *Intonation,* Cambridge University Press, Cambridge 1997 (2nd edition).

the concept of *intonation* from the first treatises on punctuation to recent teaching manuals. The particular line of research which has been common to all the British works on intonation must be brought to light here: all these works aimed at dignifying and 'beautifying' the English language.

4.1. *The sixteenth century*

It is in the sixteenth century that the relationship between oral intonation and the written text is taken into serious consideration. For the first time some scholars wonder whether it is possible to make a transcription of the oral language or not[2].

Reading aloud was once performed standing up. The voice was accompanied by gestures and this expressive form of reading was in its turn to influence the composition of writing, which adapted itself to the intonation, cadence and rhythms of the oral tradition. People 'listened to books', which were written to be 'heard'. Nowadays, after centuries of silent reading, the concept of reading aloud seems rather alien to us. Nor do we consider it possible to write something which could only 'be read aloud' or 'be interpreted' by someone's voice and gestures unless we are 'professionals of the voice'. The gap between what is aimed at being said and, on the contrary, what is created to be written is enormous. Some centuries ago the first attempts to fill this gap were made with the help of *punctuation.*

4.1.1. *Treatises on punctuation*

The history of the English language says a lot about the evolution of both oral and written English. The first sporadic studies on the double aspect of English developed in parallel with the works on spelling and orthography.

The earliest mention of English intonation seems to have been made

[2] For a discussion on this topic in Italian 16th century literature see: N. Maraschio, *Il parlato nella speculazione linguistica del Cinquecento,* Accademia della Crusca, Florence 1977, pp. 207-226. For some examples of transcription of prosodic features in a 16th century Italian work see: M.P. Mossi, *Il ritrovamento di una scrittura ortofonico-neumatica per l'esecuzione del testo poetico nell'inedita poesia italiana di Giovan Battista De' Calderari,* Pubblicazioni dell'ISU-Università Cattolica, Milan 1996.

in connection with some discussions about *punctuation marks,* or about rules for their usage. In sixteenth-century books of grammar, rhetoric, and the art of reading the names *comma, colon and period* appear and are used to indicate parts of a sentence: the *period* is a complete sentence, the *colon* a member, *the comma* a small part of a short phrase[3]. Starting from this use these names were later used in a wider sense: therefore, the word *period* meant not only a sentence, but also the point (.) indicating its end, *colon* became the name of the 'two pricks' (:) commonly used to separate the *cola* of a sentence, and *comma* (,) was used to separate the 'commata' or smaller parts of a sentence.

No later than the second half of the sixteenth century a systematic description of all the possible punctuation marks is produced. In 1551 John Hart gives an epitome of the principles of punctuation when he speaks of *distinction of pointing*:

> The pointing teacheth us how to rest and stay, how to understand what is added and is not neadful to the sentence, and what some translater or new writer of a worke, doth ad more than the author at first wrate, also what sentence is asking and what is wondring: their numbre is seven, whose figures folow /,/:/./?/!/( )/[ ]/ their names and power doo folow in order[4].

Hart, one of the first English writers on spelling reform and undoubtely one of the greatest authorities on pronunciation[5], produced the earliest discussion on melody in spoken English. His statements, especially his full treatment of punctuation, probably gave substantial support to the idea that English rhythm deserved recognition as well as syntax and vocabulary.

[3] For a discussion on this topic see: B. Danielsson, *John Hart's Works on English Orthography and Pronunciation: 1551, 1569, 1570*, Part II, Almqvist & Wiksell, Stockholm 1963, pp. 71-75.

[4] J. Hart, *The Opening of the Unreasonable Writing of Our Inglish Tongue,* MS British Museum Royal 17.C.VII 1551, quoted in B. Danielsson, *Op. Cit.*, pp. 48-49, 50-53, 237-275 (quoted here from p. 72).

[5] K. Pike, *Op. Cit.*, p. 3; D. Crystal, *Op. Cit.*, p. 21; Ch.C. Fries, *On the Intonation of 'Yes-No' Questions in English*, in D. Abercrombie, D.B. Fry et alii eds, *In Honour of Daniel Jones. Papers Contributed on the Occasion of his 80th Birthday*, Longmans, London 1964, p. 242; G. Faure, *Op. Cit.*, p. 2.

4.1.1.1. *John Hart (1574)*

Hart is famous for three treatises, which are all concerned with problems of English spelling and pronunciation. The first is *The Opening of the Unreasonable Writing of Our Inglish Tongue (1551).* The second one is *An Orthographie Conteyning the Due Order and Reason, Howe to Write or Paint Thimage of Mannes Voice, Most Like to the Life or Nature (1569).* The third one is *A Methode or Comfortable Beginning for all Unlearned, Whereby They May Be Taught to Read English in a Very Short Time, with Pleasure (1570)*[6].

An Orthographie will be studied here. It is considered his most important work. For too long, unfortunately, it remained almost unaccessible, being in part in manuscript and in part in rare sixteenth-century editions. It was in some way 'discovered' and a high value was put on it only at the beginning of the twentieth century, thanks to Jespersen, and more recently Danielsson and Dobson[7]. All these scholars have recognized in Hart's work the first systematic description of the sounds of English: he had a clearly defined idea of *a standard of correctness in speech,* which must have been a revolutionary feature for that time.

The volume is divided into a Preface and three Chapters. In the Preface of *An Orthographie* Hart explains the reason for writing the book. He wants to free his language from its state of 'confusion and disorder', which makes it 'a kinde of ciphring' (a sort of coded language), whose written form is of 'a darke kinde'[8]. In Chapter 1 he describes 'What Letters are, and Their Right Use'. Letters represent 'Elements', or 'Simple Voices' (nowadays the word *phoneme* would be used), so that "every word is to be undone into those voices only whereof it is made. (...) You are forced to graunt the writing should have so many letters as the speech hath voyces, and no more nor lesse"[9]: in other words, each *phoneme* should be represented by one *grapheme*. In Chapter 2 (entitled

[6] J. Hart, *The Opening of the Unreasonable Writing...,* cit.; J. Hart, *An Orthographie, Conteyning the Due Order and Reason, Howe to Write or Paint Thimage of Mannes Voice, Most Like to the Life or Nature* (1569), Scolar Press, Menston 1969; J. Hart, *A Methode or Comfortable Beginning for all Unlearned (1570),* quoted in E.J. Dobson, *English Pronunciation 1500-1700,* vol. I, Oxford at the Clarendon Press, Oxford 1968 (2nd edition), pp. 63, 77, 82.

[7] E.J. Dobson, *Op. Cit.;* B. Danielsson, *Op. Cit.*

[8] J. Hart, *An Orthographie,* cit., f. 2. My references are to the original *folio-numbers*, cited as *f.*

[9] *Ibid.,* f. 9.

'Howe Some Men Maintaine our Abused English Writing'), the Author wonders why present spelling is kept, if this does not produce the correct correspondence between *letters* and *voices*, i.e. between phonemes and graphemes. He proceeds in the last Chapter to discuss the vices which 'use' maintains in English writing: the title for this Chapter is 'Of the Diuers Vices Which Use Maintaineth in our Writing, and How They are Particularly by Reason Confuted'[10]. Among these 'vices' he includes: 'diminution', that is lack of letters sufficient to represent sounds, and 'superfluity', which is the opposite tendency, that is the habit of spelling a word with more letters than it has sounds.

The contents of *An Orthographie* show a clear proposal inside the Spelling Reform. They seem to make no reference to English intonation and rhythm. But some interesting hints about the subject can be gleaned from a careful examination of those pages where punctuation is considered. The word *tune* is used for the first time in the history of English language by Hart to describe the main *intonation contours*. Questions and exclamations are two examples of particular *tunes,* which must necessarily be indicated by a question mark, or an exclamation mark. These two 'marks' are so fundamental to the understanding of a sentence that they should be put, in Hart's opinion, at the beginning of the sentence, and not at the end.

> And for the marke of the interrogatiue and admiratiue, I woulde thinke it more reasonable to use them before then after [the sentence], bicause *their tunes* doe differ from our other maner of pronunciation at the beginning of the sentence[11].

Before Hart, Aldo Manuzio had anticipated the importance of punctuation in his *Orthographiae Ratio (1561)*, where he described only its *grammatical function*. In his writing, the *semicircle* (comma) was to be used where the thought was not terminated, whereas the *single point* (period) was to be placed where the thought was concluded and terminated. *Semicolon and colon* gave intermediate degrees of grammatical and logical relationship. The use of the *interrogation point* was to be understood by the meaning of the word itself, with no other statement

[10] *Ibid.*, f. 14.
[11] *Ibid.*, f. 42. My italics.

given which might contain the slightest hint of intonational meaning[12]. On the contrary, in *The Opening of the Unreasonable Writing (1551)* – that is, even before *An Orthographie* – Hart recognized the *prosodic function* of punctuation, when he tried to describe the melodic effect produced at the end of a sentence by:

i) a question mark:

> [A question] at the beginning is sharp, and so falleth lower, according to the length of the sentence: as thus, *what doo you know? How long sleap you?* in lyk wise, though the question be but one word, yt is sharp: as, *whie? whenh? wherefore?* and souch lyke.

ii) an exclamation mark:

> [An exclamation] cometh by a sodein and great moving, of the vital and lively powers: by wondring or fearing, by myrth, sorow or anger, which are interiections: as, *O! phi! alas!* and *ho!* which begin lowd, and end in a lower tune (as doth the asker) according to the length of the breath in that sound. The lyke of sentences: as, *ho frind come hither! Phi on theis naughti devils! Alass thow killest me! O what power our God is of!* and so of others[13].

Hart recognized the double importance of punctuation: it was to be considered a signal "as well to *the eie* as to *the eare* [...]for it sheweth us how to rest"[14], in other words, an instrument for both silent reading and reading aloud. Punctuation marks were described in musical terms. There were three of them[15]:

a) *comma* (once referred to as *incisum*) should have been used to create a pause of a crotchet (i.e., two quavers, or half a minimum, or a quarter note). Hart writes: "[the comma is] neare the time of a Crachet in musicke, alwayes signifying the sentence unfinished".

[12] For a discussion on this topic, see: K. Pike, *Op. Cit.*, p. 173, n. 1.
[13] J. Hart, *The Opening of the Unreasonable Writing...*, cit., pp. 214-215 (my italics); cfr. B. Danielsson, *Op. Cit.*, p. 48.
[14] J. Hart, *An Orthographie,* cit., f. 41. My italics.
[15] Quotations for the points a), b), c) are taken from *Ibidem.*

b) *colon* (or *internodium,* as ancient Latins once referred to) could have been at least two crotchets long. It is described by the Author thanks to a metaphor, in which any text is compared to a human body: "[the colon is] the space, or the bone, fleshe and skinne betwixt two ioyntes, and so (accompting a full sentence, as a complete bodie) these two prickes may well signifie a great part therof".

c) *point* or *'periode'* (nowadays, *full stop)* is the longest pause in a text. It is used to indicate "the ende of a full and perfite sentence".

Hart's feeling for the 'melody of English' was very strong. Finding a way of transcribing this 'melody' into a written form became his main concern. He insisted on this aspect not only in *An Orthographie*, but also in his 1569 treatise, where he wrote:

> *To have an absolute writing we must use therewith accidents to signifie the accidents of the voices*; and use souch an order in pointing for the distinction of the wordes and sentences of our commune speech, as the reader may read perfectli and the hearer understand easili and readili[16].

One of the *accidents* the Author refers to is *stress*. This could be strong or weak, it may vary according to the length of the sentence, and it might be interwoven with phenomena of linking, elision, weakening and compression. The marks used by Hart to indicate these processes are reproduced here[17].

´	***sharp tune***	*(strong stress)*
`	***flat tune***	*(weak stress)*
^	***time***	*(length)*
’	***turner***	*(omitted letters)*
-	***joiner***	*(linking)*
..	***sundrer***	*(separation of syllables)*

[16] J. Hart, *The Opening...*, in B. Danielsson, *Op. Cit.*, Part I, p. 119. My italics.
[17] Adapted from: C. Adams, *English Speech Rhythm and the Foreign Learner,* Mouton, The Hague 1979, p. 23.

The last three will be later called: *apostrophe, hyphen, dieresis.*

Hart's intuitions were the basis for all the studies on English tones which followed. His writings are the first example of a theoretical approach to the intonation and rhythm of the English language. His theories about the relationship between written and oral language will be reconsidered and discussed some years later in some treatises on metre and versification.

4.1.1.2. *George Puttenham (1529-1590)*

The English courtier George Puttenham is generally acknowledged to be the author of *The Art of English Poesie*[18], a milestone in the foundation of modern poetics. The book appeared anonymously in 1589, and it can be considered almost contemporaneous with Hart's writings. Puttenham's work, like Hart's, showed a marked inclination for the sounds and tones of English.

The treatise is divided into three books. *Book I* defines poetry and the poet, traces the history of poetry from the ancient world, and reviews the different kinds of poetry. *Book II* deals with questions of metre, rhythm, rhyme, and stanzaic patterns. *Book III* discusses ornamentation, including language and style, figures of speech, and faults in writing. It ends with a lengthy treatment of the all-important subject of decorum.

In *Book III* some guidelines for propriety of writing, reading and speaking are given. It is in that context that punctuation is depicted, as a guarantee that any oral text could be written and perfectly reproduced, and viceversa. The images used by Puttenham to describe the relationship between oral and written language remind the reader of Hart's metaphor of the text and the human body: as in Hart's writing, the strong relationship between *ear* and *eyes* (namely, reading and listening) is emphasized.

> [Good grace in speaking or in reading] cannot be if they [human senses] discover any ill-favoredness [i.e. *ugliness*] or disproportion to the parts

[18] G. Puttenham, *The Art of English Poesie (1589),* E. Arber, Westminster 1895. For a detailed analysis of the text, see: W.A. Rebhorn ed., *Renaissance Debates on Rhetoric,* Cornell University Press, Ithaca (New York) / London 2000, pp. 203-222.

> apprehensive *[= the parts capable of apprehension or perception]*, as, for example, when a sound is either too loud or too low or otherwise confused, the ear is ill-affected [= *perceives it badly]*; so is the eye if the color be sad or not luminous and recreative, or the shape of a membered body without his due measures and symmetry, and the like for every other sense in his proper function[19].

Although Puttenham did not give so much attention to the length of pauses as Hart had done, he suggested that the comma should indicate 'the shortest pause', the colon 'twice as much time' as the comma, and the period 'a resting place and perfection [...] from which they [*the readers*] needed not to passe any further'[20]. Ben Jonson described punctuation almost in the same way, indicating the comma as the sign of an imperfect sentence and the full stop as the correct pause in a perfect sentence. Simon Daine, too, spoke of the period (=full stop) to 'signify conclusion'[21].

There might have been a treatise on versification preceeding *The Arte of Englishe Poesie,* entitled *Certayne Notes of Instruction,* written by George Gascoigne in 1575[22]. Unfortunately, this cannot be defined as it as a decisive contribution to the studies of English intonation. On the contrary, Puttenham's ideas were followed, almost fifty years later, by Jonson and Daine: these two Authors followed him in describing punctuation marks in terms of length of shortness of a corresponding pause[23].

4.1.2. *Minor studies*

There seems to have been no explicit discussion on English intonation and speech rhythm before Hart and Puttenham, apart from medieval liturgy. Gregorian Chant was in essence a development of the intonations of normal speech, a kind of monotonous 'speech-song'. In his study on *Liturgican Influence on Punctuation,* Peter Clemoes underlines this peculiar aspect:

[19] W.A. Rebhorn ed., *Op. Cit.,* p. 214.
[20] G. Puttenham, *Op. Cit.,* pp. 87-88.
[21] B. Jonson, *The English Grammar (1640),* cit. in K. Pike, *Op. Cit.,* p. 4; S. Daine, *Simon Daine's Orthoepia Anglicana (1640),* Niemeyer, Halle 1908.
[22] For a discussion on this topic, see: D. Crystal, *Op. Cit.,* p. 26.
[23] B. Jonson, *Op. Cit.,* p. 4; S. Daine, *Op. Cit.*, p. 70.

> In reading aloud to a large gathering of people, especially in the open air, there is a natural tendency for the reader to keep his voice on one note, allowing it to drop at the end of the sentences. Gregorian Chant systematized this tendency for the reading of Gospels, Lessons and Epistles, for the formal utterance of Prayers, Collects and Blessings, and, in simpler services of the Office, for the chanting of Psalms[24].

Medieval liturgy had a system of *musical notation (neums, virga, punctum, clivis, podatus, porrectus)* and of *liturgical notation (tuba, positurae, punctus circumflexus, punctus elevatus, punctus versus, punctus interrogativus).*

The system of 'neums' was a development from the rhetorical acute and grave accents and served as mnemonic guide to the contours of a melody already known. One 'neum' indicated from one to four or more notes. 'Neums' could be of five kinds:

- *virga (acute accent: one note in a rising melody)*
- *punctum (grave accent: one note in a falling melody)*
- *clivis (combination of acute and grave accent: two notes in a descending melody)*
- *podatus (combination of grave and acute accent: two notes in a rising melody)*
- *porrectus (combination of acute, grave, and acute accent: three notes in a melody descending and returning).*

'Neums' were used in liturgical notation as 'positurae', to indicate musical cadences varying the fixed note on which a liturgical reading was intoned (called *tuba).* There were four of them:

- *punctus circumflexus (lowering of pitch by a third; it is the falling cadence with which a 'comma' ended)*
- *punctus elevatus (gradual lowering of pitch followed by a return to the 'tuba' in one stage; it is the rising cadence with which a 'colon' ended)*

[24] P. Clemoes, *Liturgical Influence on Punctuation in Late Old English and Early Middle English Manuscripts,* Department of Anglo-Saxon Occasional Papers, Cambridge 1952, pp. 7-8.

- *punctus versus (lowering of pitch in two stages; it is the falling cadence with which a 'periodus' ended)*
- *punctus interrogativus (lowering to a third below the 'tuba' and return to it; it is the falling-rising cadence with which a question ended).*

The similarity between this system and the notion of 'tune' employed in the twentieth century is strong. In particular, as for the description of 'rising and falling cadences', the opposition between 'neums and positurae' reminds of the contemporary 'tones and contours'[25].

4.2. *The seventeenth century*

The sixteenth-century grammars and treatises on punctuation made the first steps towards the study of English intonation. In particular, Hart and Puttenham signalled the strong link between any written and oral text and the important role played by punctuation: this could have been a guarantee of correct 'recording' for any kind of text. However, in spite of these authors' insistence on the prosodic aspect of punctuation marks, in the grammars of the next few generations — and to the present — punctuation was largely defined in terms of the degree of grammatical or logical relationship between the parts of a discourse. Only in the first decade of the seventeenth century did someone go back to Hart's original idea, supplementing the definition of every punctuation mark with a more precise description of the length of each pause (the comma representing a shorter pause and the period a longer one) and with a simple mention of *pitch* (a full stop representing a falling contour, whereas a comma or a question mark meaning a level or rising intonation). This researcher was Charles Butler.

4.2.1. *The discovery of 'rising and falling tones'*

Butler's studies represented a turning point for both the studies on punctuation and on intonation and rhythm. He gave the first connected

[25] For a discussion on this topic see: D. Crystal, *Op. Cit.*, p. 22.

discussion on the two main English tunes (*rising and falling),* linking them with punctuation and grammar contrasts. While making a distinction between *tone* and *sound,* Butler affirmed:

> Tone is the natural and ordinary tune or tenor of the voice: *which is to rise, or fall, as the Primary points shall require [...].*
> Sound is the natural and ordinary force of each voice: which is to be strained, or slacked, according to the points[26].

Punctuation is such an essential instrument to indicate pauses and tunes that it deserves specific treatment. Butler's work will lead a twofold objective: firstly, to improve the usage of punctuation, and secondly to define the role of rising and falling tunes.

4.2.1.1. *Charles Butler (1560-1647)*

Charles Butler's *English Grammar* was published in 1634 with the precise aim of demonstrating the 'Excellency' of the English language on the one hand, and of improving English writing and reading on the other.

English was described as an 'excellent' language, because it responded to the three features which are typical of the few 'excellent languages' (Latin and Greek among them): *Antiquity, Copious Elegancy, and Generality.* By 'Antiquity' the Author meant the historical value of a language, widely possessed by English; with 'Copious Elegancy' he referred to the adaptability of words to express any ideas successfully and adequately; 'Generality' was the term which indicated the easy diffusion of English language through non-native speakers. Excellent though this language might be, it was nevertheless subject to two deficiencies, explained by Butler in terms of *opprobrious cacography* and *tedious difficulty of learning.* As a consequence, the Author suggested strongly that a reform of the Alphabet should be started, together with a careful study of the relationship between sounds and letters.

It is on this last point that Butler insised throughout his book, which is divided into four chapters. Chapter One *(Of the Letters)* describes how vowels and consonants are produced. Chapter Two *(Of Syllable)* gives

[26] C. Butler, *Charles Butler's English Grammar* (1634), Niemeyer, Halle 1910, p. 54. My italics. All the quotations from Butler's original writing have been changed to normal spelling.

the fundamental English spelling rules, starting from the syllable, which is the simplest unit of two or more single sounds. Chapter Three *(Of Words)* provides the definition and description of: nouns, adjectives, pronouns, verbs (tenses and moods), adverbs and prepositions. Chapter Four *(Words Adjuncts)* is devoted to tones, accents and punctuation. This last chapter willdeserve particular attention.

In Butler's *English Grammar* there is the very first definition of 'tone'. We must give credit to him for founding the study of English rhythm and intonation as an independent subject. Sounds are products of the voice (i.e., the vocal apparatus), whereas tunes depend on the 'tenor of the voice' (i.e., the basic characteristics). Tunes can be translated into writing by punctuation marks: these, called *points,* may be of two kinds: *Primary* or *Secondary.*

4.2.1.2. *Butler's 'Primary Points'*

Primary points are essential to the identification of prosodic features. They are said to "[serve] for the better understanding of Words [and to show] their Tone, Sound and Pauses"[27]. There are four of them which are considered *simple (period, colon, semicolon, comma)* and four which are defined as *mixed (erotesis, ecponesis, parenthesis, parathesis).* Secondary points *(apostrophe, eclipsis, dieresis, hyphen)* are only orthographic tools and do not give any suggestion about rhythm.

4.2.1.2.1. Simple 'Primary Points'

According to the Author of the *English Grammar,* the most clear example of usage of the four simple primary punctuation marks is given by the religious Creed. Here is the complete text, in the version given by Butler (1634):

> *I believe in God, the Father Almighty, maker of heaven and earth: and, in Jesus Christ his only son, our Lord: who was conceived by the Holy God?; born of the Virgin Mary; suffered under Pontius Pilate; was crucified, dead, and buried: he descended into hell; the third day he roofed again from the dead: he ascended into heaven; and sitted on the right hand of God, the Father Almighty: from there hee fall ..., to judge the ... and the*

[27] *Ibid.*, p. 58.

dead. I believe in the Holy God; the Holy Catholic Church; the communion of Saints; the forgivness of sins; the resurrection of the body; and the life everlasting. Amen.

The analysis of all the punctuation marks used in the passage justifies the definitions given by the Author. Every single 'point' will be discussed here

1. *Period (.).* The last sentence of the *Creed* (*...and the life everlasting. Amen.*) is valuable proof of the fact that the full stop *(period)* "is a point of perfect sense, and perfect sentence: which, in the last word, falls the tone of the voice below its ordinary tenor, with a long pause"[28]. In fact, the sentence is perfectly complete from a logical, grammatical, and rhythmical point of view.

2. *Colon (:).* It is considered as "a point of perfect sense, but not of a perfect sentence"; as for its prosodic component, it "falls the tone of the voice, with a shorter pause". This 'point' separates two sentences but it joins them at the same time: therefore, the second one completes the first. We have examples of this phenomenon in:*...the Father Almighty, maker of heaven and earth: and, in Jesus...; ...Jesus Christ his only son, our Lord: who was conceived by...; ... again from the dead: he ascended...*

3. *Semicolon (;).* This is a "point of imperfect sense, in the middle of a Colon, or period; commonly, when it is a compound axiom; whose parts are joined together, by a double, and sometime by a single, conjunction". From a prosodic point of view, the length of a semicolon is almost twice as long as that of a colon. Examples of semicolon are frequent. In the Creed, we underline the following phrases: *...conceived by the Holy God?; born of the Virgin Mary; suffered under Pontius Pilate; was crucified,...; I believe in the Holy God; the Holy Catholic Church; the communion of Saints; the forgivness of sins; the resurrection of the body; and ...*

[28] This definition and all the quotations which follow are taken from Chapt. 4, Par. 3 (pp. 58-63).

4. *Comma (,).* It is the least important simple primary point, because it is a point of "more imperfect sense, in a simple axiom, or in either part of a compound". In other words, it "continues the tenor of the voice to the last, with the shortest pause". In fact, examples like ...*God, the Father Almighty, maker;* or, ... *was crucified, dead, and buried* demonstrate that there is no variation of tones in reading the text aloud.

4.2.1.2.2. Mixed 'Primary Points'

They have one main feature, that is: they "have always some simple points, expressed or understood, in them". In fact, Erotesis and Ecponesis are used in the examples which follow instead of a full stop, a colon, a comma, etc. They are well represented in the following examples, all taken from the Holy Bible (especially from the New Testament).

1. *EROTESIS (?).*
   = *colon*
   Is God unrighteous, who takes vengeance? (I speak as a man) God forbid (Rom. 3,5).
   =*comma*
   Oh generation of vipers! Who has forwarned ... (Mat. 3,7)
2. *ECPONESIS (!)*
   =*comma*
   Alas! Who shall live when God does this! (Numbers 24,23)
   = *period*
   Oh wretched man that I am! Who shall deliver me from the body of this death! (Rom. 7, 24)
3. *PARENTHESIS ( )*
   = *period*
   Peter stood up in the middle of the disciples, and said, (the number of the names together were about 120) Men and brethren &c (Act. 1,15).
   = *comma*
   Then went the Captain with the Officers, and brought them without violence: (for they feared the people, lest they should have been stoned) and when they had brought them, &c. (Act. 5, 26)

4. PARATHESIS [ ]
=comma
Bother Saul, the Lord has sent me, [Jesus that appeared unto you, in the way as you came] that you might... (Act. 9, 17)

As in the case of the simple points, the four mixed points will be analysed now in details.

1. Erotesis. The description Butler gives for this punctuation mark is extraordinarily modern. In fact, he considers it not only a signal of 'asking' but also of 'urging' or of 'reprimanding'. He even considers it possible for a question mark to indicate an alternative, as happens in *Luk., 6, 39*: *Can the blind lead the blind? Shall they not both fall into the dite?* Therefore, he anticipates the most recent approaches to the study of the English interrogative mood, according to which very few questions are 'pure questions', whereas the greatest part of them is made up of rhetorical questions, echo questions, exclamations, and so on[29]. From a prosodic point of view, the Author reminds the reader that in the case of a 'pure Erotesis', a rising intonation would follow. If the question was of the *wh-* kind, its intonation contour would be falling.

2. Ecponesis. It is "a note of Exclamation: when some great passion of the mind is pathetically uttered: wider it is in Admiration, Indignation;

[29] In *The Philosophy of Grammar* (1925), Otto Jespersen wrote: "A question is a kind of request, a request to tell the original speaker something, to give him a piece of information that he wants. *Questions may range from virtual commands to polite prayers*" (O. Jespersen, *The Philosophy of Grammar,* Allen & Unwin, London; Henry Holt, New York 1925, p. 302. My italics). Some decades later, in 1962, Georges Faure underlines the fact that we often call a question a sentence with a final question mark, although that question will never receive any answer by anyone, because it needs no answer at all (G. Faure, *Recherches sur les caractères et le rôle des éléments musicaux...,* cit., pp. 179-249). For a complete discussion on this topic, see: D.L. Bolinger, *Interrogative Structure of American English,* Proceedings of the American Dialect Society, n. 28, University of Alabama Press, Alabama 1957. Some interesting suggestions on the subject are given also in: D. Jones, *An Outline of English Phonetics,* cit., pp. 275-326 (esp. pars. 1058 and 1063); K. Pike, *Op. Cit.*, pp. 163-168. One of the most recent theoretical approaches to the subject is given in: G. Gobber, *Pragmatica delle frasi interrogative. Con applicazioni al Tedesco, al Polacco e al Russo,* Pubblicazioni dell'I.S.U. - Università Cattolica, Milan 1999.

Exortation, Desperation; Exultation, Lamentation; Terror, Commiseration; or the like". A falling tone follows, like a normal sentence ended by a full stop, but it requires a higher tone, or a longer pause, on the word (or words) expressing exclamation *(Oh..., Alas... etc.)*.

3. Parenthesis. Normal round brackets enclose one or more words of 'perfect sense', i.e. phrases which may be independent of the rest of the sentence. These words are usually pronounced in a lower tone, or follow the same tone of the entire text.

4. Parathesis. Unlike parenthesis, square brackets enclose one or more words of 'imperfect sense', so that they have no meaning if they are not related to what follows or preceeds in the text. They represent a sort of "distinction or declaration of that which goes before". They are similar to parenthesis only in their pronunciation.

POINTS			
PRIMARY			**SECONDARY**
SIMPLE	**period**	**[.]**	
	colon	**[:]**	
	semicolon	**[;]**	
	comma	**[,]**	
			apostrophe
MIXED	**erotesis**	**[?]**	**eclipsis**
	ecponesis	**[!]**	**dieresis**
	parenthesis	**( )**	**hyphen**
	parathesis	**[ ]**	

4.3. *The eighteenth century*

The seventeenth-century studies on English punctuation and rhythm had no followers. Nevertheless, the problem of defining and transcribing the intonation and pauses of oral English reappeared strongly almost a hundred years later.

In the eighteenth century, scholars started to be seriously interested in speech mechanisms and in English oral communication. This century saw the flourishing of 'delivery'[30]. Speaking opportunities were developing rapidly everywhere: in parliament, at the bar, in the pulpit, in the theatre and in polite conversation. The demand for expressing ideas in oral English increased. The interest in private and public speech was matched by a corresponding concern for the study of the English language and pronunciation.

It was the ideal period for the development of studies on intonation. At last, in 1775 the first impressive study on English intonation appeared. It was *An Essay Towards Establishing the Melody & Measure of Speech* (later known as *Prosodia Rationalis)* by Joshua Steele[31]: this work opened up a number of important frontiers in the field of prosodic features as a whole. It was followed by John Walker's *The Melody of Speaking (1787)*[32], a markedly pedagogical treatise aimed at giving a

[30] For a discussion on the meaning of the word 'delivery' in the 18th century, see: A. Zanola Macola, *The Economy of Voice and Gesture in English Oral Communication: The American Elocutionary Movement,* in G. Iamartino, M. Bignami, C. Pagetti eds, *The Economy Principles in English: Linguistic, Literary, and Cultural Perspectives. Proceedings of the XIX Conference of the Associazione Italiana di Anglistica (Milan, 21-23 october 1999),* Unicopli, Milan 2002, pp. 316-324. By 'delivery' we mean the fifth canon of traditional rhetoric (the other four being: *Invention, arrangement, style* and *memory).* Highly regarded Roman orators such as Cicero and Quintilian recognized delivery and its importance in speeches: although neither of them dealt directly with the relationship between the speaker and the audience, they both noted how speaking may be affected by variations in the voice and body movements. As a consequence, they stressed the necessity for proper sounds and gesture in meeting the situational demands of rhetoric. The word used by the great Roman authorities to name this part of rhetoric was *pronuntiatio* or *actio.*

[31] J. Steele, *An Essay Towards Establishing the Melody and Measure of Speech, to be Expressed and Perpetuated by Peculiar Symbols* (1775), Scolar Press, Menston 1969. The second edition, known as *Prosodia Rationalis,* was published in 1779: it is longer than the original version, for it also contains the whole debate of Steele with Lord Burnett (Monboddo) on the subject discussed in the volume.

[32] J. Walker, *The Melody of Speaking Delineated,* cit.

guide to those who wanted to read and speak well.

After these, there was little additional information about English intonation until the end of the nineteenth and the beginning of the twentieth centuries. The great majority of eighteenth-century writings confined the treatment of oral language to inaccurate generalizations on the motivational power of words, though concentrating on the relationship between language, voice and gesture: as a consequence, there is a considerable number of volumes which may be interesting for a psychologist or a communication expert. Further comments on intonation were occasionally treated inside wider studies on the art of speaking and delivering a speech all through the eighteenth century. One of them is *Lectures on Elocution* (1762) by Thomas Sheridan: the volume anticipated the modern distinction between 'natural' tones, which are universals, and 'instituted' tones, which are language-particular[33].

Nevertheless, only at the end of the century did Henry Sweet, Harold Palmer and Daniel Jones become fully aware of all the prosodic effects and voice qualities of the English speaker and develop a general phonetic approach to the study of intonation.

4.3.1. *Melody and Measure*

In 1827, the American scholar James Rush wrote in *The Philosophy of the Human Voice:*

> *Time,* in speaking, is denoted by the terms; long, short, quick, slow, and rapid. Music has a more precise scale of relationship, in its order of signs from semibreve to double-demisemiquaver. [...]Mr. Steele gives examples of an application of the symbols of music, to the variable time of discourse[34].

In fact, Steele's *Essay* provided demostration for the existence of tonal variations in English almost one century before Rush. Joshua Steele was a prosodist, a musician, and an elocutionist, who made the

[33] T. Sheridan, *A Course of Lectures on Elocution: Together with Two Dissertations on Language* (1762), Georg Olms Verlag, Hildesheim/New York 1970.

[34] J. Rush, *The Philosophy of the Human Voice, Embracing its Physiological History, Together with a System of Principles by Which Criticism in the Art of Elocution May Be Rendered Intelligible, and Instruction, Definite and Comprehensive, to Which is Added a Brief Analysis of Song and Recitative,* Grigg and Elliott, Philadelphia 1893 (7th ed.), p. 70.

first attempt to create a systematic transcriptional method for notating *length, stress and pitch features.*

His primary intent was that of defining the *melody and measure of speech.* He wrote:

> The puzzling obscurity relative to the *melody and measure* of speech, which has hitherto existed between modern critics and ancient grammarians, has been chiefly owing to a want of terms and characters, sufficient to distinguish clearly the several properties or accidents belonging to language; such as, *accent, emphasis, quantity, pause,* and *force*; instead of which *five terms*, they have generally made use of *two* only, *accent* and *quantity*, with some loose hints concerning *pauses*, but without any clear and sufficient rules for their use and measurements; so that the definitions required for distinguishing between the expression *force* (or loudness) and *emphasis*, with their several degrees, were worse than lost; their difference being tacitly felt, though not explained or reduced to rule, was the cause of confounding all the rest[35].

4.3.1.1. *Joshua Steele*

Steele's study on English melody started as a reply to Lord Burnett (or Burnet, better known as Lord Monboddo) on the subject of English oral language. Monboddo wrote that the melody of the English language was "nothing better than *the music of a drum*, in which we perceive no difference except that of a louder or softer, according as the instrument is more or less forcibly struck"[36]. In aswer to this statement, Steele convinced Monboddo that English speech *has* melody and rhythm. He showed that this melody was a kind of tune or pitch pattern inherent to speech; that this rhythm was a recurrence of measured quantity which depends on the nature of language and on an inner understanding of the context.

To prove his theses, he analysed oral speech *according to musical principles,* showing how speech moves up and down the musical scale by infinitesimal intervals between syllables. He noted that, unfortunate-

[35] J. Steele, *Op. Cit.*, p. VIII.
[36] J. Burnet, *Of the Origin and Progress of Language* (1773-1792), Georg Olms Verlag, Hildesheim/New York 1974, vol. II, part II, p. 300.

ly, these intervals are not *perfect,* unlike the intervals between musical notes, which are always perfectly distinguishable[37]. Since speech melody could not be precisely rendered by literal musical symbolizations, Steele invented a new notation for speech consisting of curved lines or *slides,* replacing the traditional notes on a musical scale, and a complex system of symbols adapted from musical notation[38].

The word *accent* is used in his treatise, according to the classical tradition, with the meaning of *pitch* or *intonation*[39], and it is of three kinds:

- *grave*
- *acute*
- *circumflex (rising and falling).*

The first two are considered as *single fixed tones,* whereas the last one is the mark of *vocal slides*, in which the *acute* may become *grave* and viceversa. In fact, the *circumflex* is a sort of "flight, up and down, through nineteen quarter tones"[40]. Tonal variations occur as a rule in daily conversation, and they are fundamental tools to convey meaning to words and sentences. Rising pitch usually wants the listener's attention to be kept up, whereas falling pitch completes the sentence. This apparently elementary intuition will become a fundamental idea in the elocutionary tradition which will later develop in Great Britain and in the USA.

Steele's first steps towards the description of *accent*, or *intonation,* were taken on the basis of repeated experiments on his own oral performance. These 'tests' were carried out with the help of a bass viol, in order to determine both the absolute range of pitches through which the

[37] We read in the *Essay (*J. Steele, *Op. Cit.*, p. 4)*: "The melody of speech* moves rapidly up or down by *slides*, wherein no graduated distinction of tones and semitones can be measured by the ear; nor does the voice [...]ever dwell distinctly, for any perceptible space of time, on any certain level or uniform tone, except the last tone on which the speaker ends or makes a pause. [...]whilst almost every one perceives and admits singing to be performed by the ascent and descent of the voice through a variety of notes [...]; it seems, at first sight, somewhat extraordinary, that even men of science should not perceive the rapid slides of the voice, upwards and downwards, in common speech".

[38] For a more detailed analysis of Steele's notation and thought see: A. Zanola Macola, *La melodia della parola secondo Joshua Steele,* "L'analisi linguistica e letteraria", 1, 1996, pp. 173-203.

[39] Cfr. J. Burnet, *Op. Cit.,* vol. II, part II, p. 278; J. Steele, *Op. Cit,* p. 10.

[40] J. Steele, *Op. Cit,* p. 8. For a discussion on the double form of the *circumflex* see also: J. Walker, *Op. Cit.*, p. 16.

voice was capable of sliding, and the manner of progression from tone to tone. As to the first matter, Steele reported as follows:

> I made trial of the fundamental (or deepest note of the instrument) that seemed to be key note to the common level of my voice in speaking, [...]and made use of the open tone of the fourth string of a violoncello, [...]which was the octave below my common level. I found my slides in common discourse went about a fifth (of the diatonic scale) above the level or key-note, and about a seventh below it; but if empassioned, it run two whole tones higher, which made in the whole extent a compass of 13 notes, or octave and sixth[41].

The Author soon realized that the continuous changes from *acute to grave* and viceversa did not follow the rules of the diatonic or chromatic scale, because they were too rapid to be recognized by a human ear. As a consequence, he unequivocally declared, against Monboddo's theory, that English rhythm was not monotonous.

With his system of notation, Steele hoped that anyone might read a written text as a score of music and that performances of great actors and speakers might be preserved. He illustrated his hopes with a transcription of the famous *Hamlet*'s soliloquy as delivered by David Garrick: here he used the musical staff, the clef, the time signature, and supplementary indicators for rate, pause, pitch, force, and stress. In a sense, he tried to anticipate what the phonograph and the tape recorder were to do later.

On both sides of the Atlantic, prosodists and elocutionists employed in one way or another Steele's new analysis of phonetic, dynamic, and prosodic components of speech. His lively concern for *living facts* was atypical at his time: in this way, he taught his followers *to observe phenomena* of English speech, rather than to yield to any authoritarian pronouncement.

4.3.1.2. *John Walker (1732-1807)*

Walker was thirty-seven years old when he abandoned his career as an actor and turned to teaching, lecturing, and writing on elocution. He published many works on pronunciation, elocution, and composition and

[41] J. Steele, *Op. Cit*, pp. 37-38.

became the most important scholar of the eighteenth-century in matters of pronunciation, especially after his publication of *A Critical Pronouncing Dictionary and Expositor of the English Language* in 1791[42].

He published six books on elocution: *Exercises for Improvement in Elocution (1777)* is a collection of readings, dedicated to Garrick; *Elements of Elocution (1781)* is an important systematic presentation of his elocutionary theory, later summarized in *Hints for the Improvement in the Art of Reading (1783); A Rhetorical Grammar (1785)* presents an adaptation of the old canons of rhetoric to the 'new' canons of elocution; *Melody of Speaking Delineated (1787)* explains a method of teaching elocution by means of signs adapted from musical notation; finally, *The Academic Speaker (1789)* is a book of extracts for declamatory practice[43]. *The Elements of Elocution* and the treatise on *Melody* are his most interesting works for our research.

The basic idea in Walker's *Elements* is that the reader obtains harmony of sound and achieves fidelity to the author's purpose by applying the inflections found in nature to the various grammatical forms utilized by the author. These inflections are four:

- *rising*
- *falling*
- *circumflex rising*
- *circumflex falling*

His distinction is not new. In fact, Steele had written about rising, falling, and circumflex inflections six years before Walker's publication. However, Walker's application of the theory of slides to grammatical forms is undoubtedly original. He went back to this subject in the following years, especially in his treatise on *Melody.*

Walker's analysis of intonation and prosody was done with a strong

[42] T. Crowley, *Proper English? Readings in Language, History, and Cultural Identity,* Routledge, London/New York 1991, pp. 94-110.

[43] Walker's complete bibliography is given in *Ibidem* and in: F.W. Haberman, *English Sources of American Elocution,* in K. Wallace ed., *History of Speech Education in America,* Appleton-Century-Crofts Inc., New York 1954, p. 117. See also: M. Cohen, *Sensible Words*, Johns Hopkins University Press, Baltimore 1977; A.P.R. Howatt, *A History of English Language Teaching*, Oxford University Press, Oxford 1984.

pedagogical intent, as the *Advertisement* to the *Melody of Speaking* underlines:

> The Author addresses those few who philosophize on language, and who look with a favourable eye on whatever promises improvement. By a long course of teaching he has repeatedly experienced the utility of his plan, and, for the use of his pupils, is induced to make this addition to his former treatises on the same subject[44].

He paid a great deal of attention to theoretical principles, and was perfectly aware of the basis of tonal contrasts. As a premise, he outlined the difference between *musical melody* and *oral melody*, as Steele had done before him:

> Singing sounds are such as continue a given time, upon one precise point of the musical scale, and then leap as it were from one note to another; but *speaking sounds, instead of dwelling on the note they begin with, slide either upwards or downwards to the neighbouring notes*, without any perceptible rest on any; so that speaking sounds are exactly of the same kind with those which are produced by a violin when the finger slides up and down the string, while the bow is drawn across it. *The singing sound, therefore, is a Monotone, and the speaking sound a slide or inflection*[45].

In this treatise the *inflections* were widely described and exemplified in five groups, instead of the originary four:

i) *The Monotone.* Transcribed with a horizontal line, similar to that which is used to express a long syllable in verse (¯), it is considered by the Author as "a continuation or sameness of sound, like that produced by repeatedly striking a bell; it may be louder or softer, but continues in exactly the same pitch"[46]. According to Walker, one of the best examples of this inflection is given in Milton's *Paradise Lost* (Book ii, v. I: "High on a throne of royal state, which far...").

ii) *The rising inflexion* (´). It is described as the "upward turn of the voice we generally use at the comma, or in asking a question, which begins with a verb".

[44] J. Walker, *Op. Cit.*, p. ii.
[45] *Ibid.*, p. 7. My italics.
[46] *Ibid.*, p. 15.

iii) *The falling inflexion* (`). It is generally used "at the colon and semi-colon, and must necessarily be heard in the answer to the former question".

iv) *The rising circumflex (∨).* It begins with a falling slide and ends with a rising slide on the same syllable.

v) The falling circumflex (^). It begins with the rising and ends with the falling slide.

Additional emphasis may be superimposed on each of the five inflections. It is of two kinds: emphasis of passion or emphasis of sense. The first "gives force and energy to every word in a sentence, and cannot, therefore, be denoted by marking single words, but must be described [...]at the head of the sentence"[47]. The other "marks every word in opposition or contradistinction to any other word expressed; or marks opposition or contradistinction to some word not expressed, but understood"[48].

A choice of readings follows the theoretical explanation. Here it is the complete list: *Mr. Pitt's Answer to Mr. H. Walpole, Lord Strafford's Speech, Lord Clifford's Speech, King Edward the IV's Speech, The Oration of Cominius, The Speech of Hermocrates, John of Gaunt's Speech, Speech of the Lady in Comus on Temperance, Speech of the Lady in Comus on Chastity, Portia's Speech on Mercy, Demosthenes against Aeschines on the Crown.*

4.3.1.3. *Thomas Sheridan (1719-1788)*

Sheridan's biography is astonishingly similar to Walker's. Both of them were actors, theatre managers, and then lecturers, writers and lexicographers. But their methods were basically different. As we have seen previously, Walker was a pedagogue and tried to establish a system; on the contrary, Sheridan was an observer, liked generalizations, and sought a revival of oratorical training.

His works deal with three main subjects: education, pronunciation, and elocution. His three works dealing more specifically with reading and speaking are published lectures. In *A Discourse being Introductory to a Course of Lectures on Elocution and the English Language (1759),*

[47] *Ibid.*, p. 18.
[48] *Ibid.*, p. 19.

Sheridan recommended the study of the spoken language and the principles and rules of elocution. He insisted on these subjects also in *A Course of Lectures on Elocution (1762):* in this series of seven lectures he provided the working definition of elocution, established his philosophy, and discussed articulation, pronunciation, accent, emphasis, tones (or *notes)* of the speaking voice, pauses or *stops,* key or *pitch,* management of the voice and gesture. *Lectures on the Art of Reading (1775)* repeats many of the theories discussed in *A Course*[49]. The central proposition of these works is that oratory, properly taught, will eliminate the disorders in the English language. By 'language' he means:

> any way or method whatsoever, by which all that passes in the mind of one man, may be manifested to another. And as this is chiefly done by an agreement in the use of certain signs, it is no matter what those signs are; there being little or no natural connection, between any verbal signs and our ideas, which is sufficiently evinced, by the variety of languages that are spoken, in the different countries of the world[50].

Sheridan's *A Course of Lectures on Elocution (1762)* underlines the importance of *words,* which are necessary tools for the expression of ideas. As a matter of fact, words are *the marks or symbols of our ideas*[51]. However, the usage of words is strictly dependent on correct pronunciation. The meanings of words is entirely conditioned by the speaker's good pronunciation. For what, Sheridan asks, would be the point of being able to be sure of the meaning of a word if the pronunciation of the same word by different speakers resulted in our not being able to recognize that word? Communication cannot take place without good elocution. The Author explains the idea clearly in his *Lecture VI,* in which the *tones* of the English language are described:

> Now, as in order to know what another knows, and in the same manner that he knows it, an exact transcript of the ideas which pass in the mind of one

[49] Only Sheridan's most important works will be discussed here: T. Sheridan, *Op. Cit.* A detailed evaluation of his complete work can be found in: F. W. Haberman, *English Sources of American Elocution,* in K.R. Wallace ed., *History of Speech Education in America,* Appleton-Century-Crofts, New York 1954, pp. 105-126; T. Crowley, *Op. Cit.*, pp. 63-72.
[50] T. Sheridan, *Op. Cit.,* p. 94.
[51] *Ibid.,* p. 98. My italics.

> man must be made by sensible marks, in the mind of another; so in order to feel what another feels, the emotions which are in the mind of one man must also be communicated to that of another, by sensible marks.
> That the sensible marks necessary to answer this purpose, can not possibly be mere words, might fully be proved by a philosophical disquisition into their nature [...]. It is certain that we have given names to many of these emotions [...]. But the use of these names is not to stand as types of the emotions themselves, but only as signs, of the simple or complex ideas, which are formed of those emotions[52].

True signs of passions are tones and gestures, which are expression of *the language of passions (or emotions)*[53]. Tones, in particular, are "expressive of sorrow, lamentation, mirth, joy, hatred, anger, love, pity, &c." and are the same "in all nations, and consequently can excite emotions in us analogous to those passions, when accompanying words which we do not understand". The power of tones is so strong that "the very tones themselves, independent of words, will produce the same effects, as has been amply proved by the power of musical imitation. And tho' these tones are usually accompanied with words [...], yet the whole energy, or power of exciting analogous emotions in others, lies in the tones themselves"[54].

Tones may express feelings and emotion, whereas words express contents and ideas. Tones are even more important than words, because "words are limited to their peculiar office, and never can supply the place of tones; yet tones, on the other hand, are not confined to their province, but often supply the place of words, as marks of ideas"[55]. The Author is absolutely convinced of the superiority of tones in conveying information and feelings: the Chinese language is, in his opinion, the most perfect demonstration of his theory. In fact,

[52] *Ibid.*, p. 99.
[53] *Ibid.*, p. 101. Sheridan's theory includes two *kinds of language,* namely *the language of ideas* and *the language of passions, or emotions:* "The one is, the language of ideas; by which the thoughts which pass in a man's mind, are manifested to others; and this language is composed chiefly of words properly ranged, and divided into sentences. The other, is the language of emotions; by which the effects that those thoughts have upon the mind of the speaker, in exciting the passions, affections, and all manner of feelings, are not only made known, but communicated to others; and this language is composed of tones, looks, and gesture" (*Ibid.*, pp. 132-133).
[54] *Ibidem.*
[55] *Ibid.*, p. 108.

> The Chinese language is chiefly made up of tones, and the same individual word shall have sixty different meanings, according to the different tones in which it is pronounced. Here then it is clear, that fifty nine of the sixty ideas, are marked by tones; for the same individual word, pronounced exactly in the same manner, can not possibly by itself, be a clear and distinct mark, for more than one idea[56].

Unfortunately, there is no further reference to the functions of intonation and prosodic features throughout Sheridan's work. He was a great innovator, however, in depicting the use of language not merely to communicate ideas, but also all the emotions, and sensitive, and imaginative faculties of man[57]. Sheridan's ideal delivery was to be characterized by *grace and naturalness.* When he began his work, Cicero and Quintilian were his frame of reference in the elocutionary field, but later he created his own categories; he reached a large audience through his lectures and his books and brilliantly practiced his own art.

4.4. *The nineteenth century*

At the end of the eighteenth century many of the most important problems of intonation had been sketched out, although most of them were stillnot recognized as such. Kenneth Pike, at the end of a short historical introduction to his intonational analysis of American English, summarizes the main points of the seventeenth and eighteenth prosodic studies and suggests a list of interesting questions, that will be proposed here. Each question corresponds to one intonational problem discussed by one or more authors among those that have been studied in the previous chapters.

> Is intonation important to communication, or is it something which can safely be ignored (Hart)? [...]Can the intonation be divided up into two or more general pitch schemes (Butler), or is a more complicated system necessary for description (Steele)? [...]Is pitch unimportant and practically nonexistant in English because it is not lexical as in Greek (Monboddo) or is nevertheless highly significant (Steele)? Does the pitch act primarily on syllables (Steele) or is it spread over words and sentences (cf. Monboddo)?

[56] *Ibidem.*
[57] *Ibid.*, p. 110.

> Should the pitch be represented like music (Steele), or by a few marks for the general trend of the voice (Walker)? Does the pitch of English function like mere animal cries (Sheridan), or like the dull beating of a drum (Monboddo), or like extremely intricate music (Steele), or in extremely simple tunes slightly modifiable (Butler, Walker)? Is intonation independent of grammar or caused by it or accompany it in some specific relationship (cf. Steele versus Walker)? Should the attention be placed upon a full analysis, regardless of practicability of writing (Steele), or should an attempt be made to a full analysis to be made to indicate a few pitch curves, only, by a limited number of symbols for use by students (Walker), or left as punctuation (Butler)? Finally, should the analysis of English intonation be prepared for the native or for the foreigner (cf. Hart's discussion of both uses of the phonetic alphabet, f. 5, p. 1-2)?[58].

Apparently, it seems that at the beginning of the twentieth century all had already been said about intonation. In fact, the major intonational problems had been recognized centuries before. George Faure, in his *Recherches sur les caractères et le rôle des éléments musicaux dans la prononciation anglaise*, seems to agree with Pike on this point. In a chapter devoted to English intonation, he says:

> Il semble bien que dès la fin du XVIIIe siècle l'étude de l'intonation anglaise ait non seulement retenu l'attention d'authentiques chercheurs, mais les ait aussi amenés à poser, souvent en termes excellents, tout un ensemble de problèmes qui font encore l'objet de travaux et de discussions, et même à proposer à leur sujet des essais de solution qui ne seraient pas déplacés dans des ouvrages beaucoup plus récents[59].

Nineteenth century studies on English intonation did not generate new - or at least original - ideas in the field. Nevertheless, it is in this century that the interest in intonation and prosody increased enormously both in England and in America. In Great Britain linguists concentrated on the debate between supporters and accusers of Steele's theories, whereas in the U.S.A. the first studies on the functions of intonation in oral communication take root.

[58] K. Pike, *Op. Cit.*, pp. 4-5.
[59] G. Faure, *Op. Cit.*, p. 19.

4.4.1. *Towards a science of speech*

Steele's work did not have great success when it was published. The reviews of *Prosodia Rationalis* were very sceptical about any 'musical' transcription of the oral language. An anonymous writer of the nineteenth century wrote:

> Even admitting that, in the rise and fall of speaking, the voice does run the divisions up and down the very few notes within the compass contended for, the oratorical melody of the Greek tongue being confessedly lost, and the application of it, or the substitution of any thing equivalent to the English, being attended with great, if not insuperable difficulties, it may be worth considering, whether it would not be better to give up all thoughts of it entirely, and make the suppression of such variation the distinguishing characteristics of *speaking*, as opposed to *singing*[60].

In other words, if English could not achieve the accomplishments of Greek, it was better give up the attempt altogether. No compromise was allowed: either English had all the properties of a classical tongue, or it was preferable to abndon the few it did have. In any case, intonational studies were considered useless, being motivated by a vain aesthetic intent to maintain a certain 'elegance of speech'.

Two months later, however, another anonymous writer declared in *The Critical Review* that Steele's *application* of musical notation to the task of transcribing speech was something 'new'[61] and underlined its value. From that moment on, Steele's contributions to the study of English intonation were given their right weight, till the phonograph was invented. When technology produced machines able to record the human voice, *Prosodia Rationalis* failed to achieve its purpose, and was practically forgotten.

Of the few who did remember Steele's importance, Thelwall, Roe[62]

[60] The review is published in: P.K. Alkon, *Joshua Steele and the Melody of Speech,* "Language and Speech", II/3, 1959, pp. 167-168. Here we quote from: *Ibid.,* p. 168.

[61] *Review of Steele's Prosodia Rationalis,* "The Critical Review, or Annals of Literature by A Society of Gentlemen", 41, 1779, p. 212.

[62] For a discussion on this topic see: T.S. Omond, *English Metrists*, Oxford University Press, Oxford 1921.

and Odell[63], Ellis[64] and Storm[65] must be cited. Two works in particular will be considered now: *An Essay on the Elements, Accents and Prosody of the English Language* by Odell and *Speech and Song* by Ellis.

4.4.1.1. *James Odell*

In 1806 Odell, one of Steele's most faithful followers, published *An Essay on the Elements, Accents, & Prosody of the English Language,* as a confirmation of his teacher's theories. In the chapter *English Accents* the Author described some keywords, such as *tone, pitch, accent, melody,* and their etymology. He reconsidered the works of some of his ancestors: Walker's *Melody*, Sheridan's *Lectures* and, of course, Steele's *Prosodia Rationalis*. The latter one is his own main reference book, even though his position towards Steele's thought is not without reservations. In particular, he is critical of Steele's idea of 'pause'. Steele assumed the existence of eight different subdivisions of quantity, corresponding to the musical notes from a quaver to a dotted semibreve, and to their equivalent pauses. On the contrary, according to Odell,

> no measures, whether of sound or silence, in prose or verse, can be regulated by arbitrary computations: nor can such diversities of measures, as Mr. Steele assumes, be ever realised in practice. [...]*Notes may be sounded in exact proportions of time,* [...]. In speaking, we know (and for our knowledge we are indebted to Mr. Steele himself) that *the voice is in continual motion, ascending and descending, not always indeed with equal velocity, but always very rapidly, through intervals of limited extent*[66].

As a consequence, Odell disagreed with Steele's definition of *quantity*, too. Not so did Ellis, who acknowledged *Prosodia Rationalis* to be "the classical work on the time and cadence of English speech", commenting on "the rarity and value of his [Steele's] book"[67].

[63] J. Odell, *An Essay on the Elements, Accents and Prosody of the English Language; intended to Have Been Printed as an Introduction to Mr. Boucher's Supplement to Dr. Johnson Dictionary*, Lackington-Allen, London 1806.
[64] J.A. Ellis, *Speech and Song* (1877), quoted in M. L. Barker, *Joshua Steele on Speech Melody,* "The Modern Language Review", 3, 1924, pp. 169-174; P. Alkon, *Op. Cit.*, pp. 172-174.
[65] J. Storm, *Englische Philologie* (1892), quoted in M.L. Barker, *Op. Cit.*, p. 171.
[66] J. Odell, *Op. Cit.*., pp. 154-155 (my italics). For a discussion on the concept of *pause* see: C. Adams, *English Speech Rhythm and the Foreign Learner,* Mouton, The Hague 1979, pp. 28-30.
[67] A.J. Ellis, *On the Physical Constituents of Accent and Emphasis,* "Transactions of the

4.4.1.2. *Alexander Ellis*

In 1876, a hundred years after the publication of *Prosodia Rationalis,* Ellis published an essay on the English rhythm, entitled *Speech and Song,* where the difference between oral and musical performances was described in the following terms:

> In speech, pitch is uncertain, unsustained, and 'gliding' through several pitches but slightly differing from each other. In song, pitch is (or should be) quite certain, sustained, and rarely gliding off to another pitch[68].

The Author was totally indebted to Steele's theories, as he recognized some years later:

> Steele attended to length and silence in one, under the name of time, and distributed them so as to divide speech, in prose or verse, into equal intervals of time, answering to musical *bars*; he especially noted pitch, and also force, not however, as here employed, but as part of expression, and hence forming part of weight, and corresponding to the crescendos and diminuendos of music, and in fact the whole apparatus of oratory. What is here meant by force he calls weight, and makes it agree completely with the beating of a conductor of music, that he assignes weight to silences[69].

It will be observed that Ellis emphasizes Steele's postulate of periodicity, omitting any mention of his independent apparatus for indicating relative duration.

Ellis became more and more interested in the intonational functions, and not only in the description of prosodic phenomena. Consequently, he found some American studies in the field - especially James Rush's and Melville Bell's researches - absolutely innovative[70].

Philological Society", 113, 1873-1874, pp. 129-132.

[68] J.A. Ellis, *Speech and Song*, in M.L. Barker, *Op. Cit.*, p. 171.

[69] J. A. Ellis, *Mr. Alexander J. Ellis Remarks on Professor Mayor's Two Papers on Rhythm*, in P. Alkon, *Op. Cit.*, p. 172.

[70] A complete bibliography on this subject is given in: A.G. Kennedy, *A Bibliography of Writings on the English Language from the Beginning of Printing to the End of 1922*, Harvard University/Yale University Presses, Cambridge/New Haven 1927.

4.5. *The beginnings of the 20th century*

Independently of the discussions about rhythm and metre taking place in Britain in pamphlets and scholarly journals, at the end of the nineteenth century there began to be developed an awarenes of the importance of intonation, especially in the context of language teaching. The need to provide materials which would be both useful to teachers and adequate guides to prosodic features led some phoneticians to write descriptive and teaching manuals of intonation.

The earliest work in this field was that of Henry Sweet. Sweet's general phonetic training made him fully aware of prosodic effects and voice qualities other than intonation in English (*breath, voice, whisper, glottal stop, stage whisper or wheeze* among the *throat sounds; clearness, dullness, nasality, wheeziness, gutturality* among the *voice qualities).* Developments in transcriptions came early: Paul Passy first used a system of lines and curves, whereas Daniel Jones continued to use a musical notation in his *Intonation Curves.* A system of notation was devised by Harold Palmer: he stressed the need to distinguish the functional units of intonation, called *head, nucleus* and *tail.* Moreover, he adopted a new transcription: his intralinear transcription – that is, within the line of text – replaced the traditional interlinear one.

The approach begun by Palmer had at least two important followers: Roger Kingdon, who introduced the subdivisions of *pre-head and body* within the concept of head, and Maria Schubiger, who gave a certain amount of space to the attitudinal variants of English intonation[71]. On the contrary, Jones's studies were the basis of Lilias Armstrong and Ida Ward's classification of tunes according to grammatical structures[72].

In the first half of the twentieth century the work of these scholars was decisive in forming a theoretical perspective and a methodology for further study. However, after this early activity, there was a pause in the production of new textbooks and approaches to the subject: the 'new' ideas took time to be assimilated, and the Second World War had a gen-

[71] M. Schubiger, *English Intonation, its Form and Function*, Niemeyer, Tübingen 1958.
[72] L.E. Armstrong, I.C. Ward, *Handbook of English Intonation,* B.G. Teubner, Berlin 1926.

eral *stultifying effect*[73]. Only after the war, did the 'industry of teaching English' develop: this required new teaching materials and new data of a more conversational kind. Since then, the British approaches to intonation have shown a marked similarity in principles, as well as in notation, and this may have been due to a reaction against the American theories, which "phonemicised or morphomicised" intonation[74].

4.5.1. *Henry Sweet*

Sweet's main concern throughout all his intonational research was pedagogic. Since he was both phonetician and teacher of English as a foreign language, he described the studying of phonetics as *the indispensable foundation of language.* Thus did he write in 1877:

> Without a knowledge of the laws of sound change scientific philology – whether comparative or historical – is impossible, and without phonetics their study degenerates into a mere mechanical enumeration of letter changes[75].

When Sweet started writing about intonation, the subject was still considered 'new'. In his preface to *A Handbook* we read:

> It need hardly be said that many of the statements in this book [...]will require careful examination by others before they can be either fully received or rejected. The whole subject of intonation, especially, requires to be thoroughly investigated by a thoroughly competent observer, which I am very far from being, my natural aptitude and my training being equally defective. It is in this branch, in the *study of voice-timbre and of synthesis* generally, that the work of future phoneticians must be concentrated[76].

[73] The expression is adopted by D. Crystal in his *Prosodic Systems and Intonation in English* (cit.), p. 37.

[74] The expression is borrowed from *Ibid.,* p. 39, where Crystal complains about the absence of "any *comprehensive* description of the forms of intonation used in English" adopted by the contemporary British school of intonational studies. He thinks that "much of the available material is selective and oversimplified, due to the pressing demands of a pedagogical context - a state of affairs which is perfectly understandable when seen in its historical setting, but which is none the less undesiderable. The lack of any complete guide to intonation naturally resulted in a great deal of personal impressionism, and the making of vague frequency judgements".

[75] H. Sweet, *A Handbook of Phonetics,* Clarendon Press, Oxford 1877, p. III.

[76] H. Sweet, *A New English Grammar, Logical and Historical,* Part I, Oxford at the Clarendon Press, Oxford 1900-1931, p. X (my italics).

A knowledge of intonation – and sentence stress as a consequence – is not only an essential part of elocution and pronunciation, but is also an integral part of the syntax. Each language reveals its own particular relationship between intonation and grammar. So, for example:

> In such a language as English each tone has a general signification, and may be applied to any word indifferently. Thus by a simple inflexion of the voice a single word will often express what in other languages could only be adequately stated in a complete sentence. We may therefore call this kind of tone a *sentence-tone.* The Greek tones on the other hand are strictly *word-tones;* each word has but one tone, which is absolutely inherent in it, being as much an essential part of it as its consonantal or vowel structure[77].

The grammatical function of intonation is often underlined by Sweet, especially when he studies the syntax of English questions.

> We can see how *intonation* shows the relation between words by comparing such a sentence as *you are ready?*, uttered with a rising tone, with the same sentence uttered with the falling tone of such a sentence as *I am ready.* While the falling tone expresses statement, the rising tone expresses question, so that the rising tone in *you are ready?* has the same meaning as the change of word-order in *are you ready?*[78]

Intonation is studied in terms of *inflections,* which may be of five kinds:

- *level*
- *rising*
- *falling*
- *compound rising* (that is, *falling-rising*)
- *compound falling* (that is, *rising-falling*)[79].

[77] H. Sweet, *On Danish Pronunciation,* cit., in E.J.A. Henderson, *The Indispensable Foundation. A Selection from the Writings of Henry Sweet,* Oxford University Press, London 1971, p. 179.

[78] H. Sweet, *A New English Grammar,* I, cit., p. 31.

[79] Unfortunately, there is no clear definition of the words *intonation, pitch, tone* and *key* in Sweet's writings. In *A Handbook* (pp. 93-96) the expressions 'variations of pitch' and 'variations of tone' are interchangeable. *Changes of pitch* is synonym of *changes of tone* also in: H. Sweet, *A History of English Sounds* (1888), cit. in E.J.A. Henderson, *Op. cit.*, p. 178. Again, in

Inflections may proceed by sudden *leaps* or regular *glides*. These two different changes of tones make the difference between musical intonation and oral intonation.

> In singing the voice dwells without change of pitch on each note, and leaps upwards or downwards to the next note as quickly as possible, so that although there is no break, the intermediate 'glide-tone' is not noticed. In speech the voice only occasionally dwells on one note, but is constantly moving upwards or downwards from one note to the other, so that the different notes are simply points between which the voice is constantly gliding[80].

Almost all the oral performances are based on *voice-glides,* constantly moving upwards and downwards; only occasionally will the voice "dwell on any one note"[81]; producing a *voice-leap.* Voice-glides and voice-leaps are different in different languages. In English the tones express various logical and emotional modifications, such as surprise, uncertainty, etc. but in some other languages there is a tendency to employ one predominant tone without much regard to its meaning. Sweet recognizes that, for example, in Scotch the rising tone is often employed monotonously, not only in questions but also in answers and statements of facts. In Glasgow Scotch the falling tone predominates. In American English the compound rise seems to be, on the contrary, the characteristic tone[82].

Sweet's pedagogical concern plays an important role here. The main problem is, according to him, that of recognizing the grammatical functions of intonation, more than the problem of recognizing the different kinds of inflections. If intonation has a different function in different languages,

A Handbook (cit., p. 96), the word *key* is introduced as a synonym of *pitch*: "Besides the separate inflections of which it is composed, each sentence, or sentence-group, has *a general pitch, or 'key'* of its own" (My italics). See also: H. Sweet, *A New English Grammar...,* cit., p. 229: "When excited, we speak in *a high pitch or key*; when depressed, *in a low key*" (my italics).

[80] H. Sweet, *A Handbook...;* cit., p. 93.

[81] *Ibidem.*

[82] H. Sweet, *A Handbook...,* cit., p. 94.

> How do such languages express these general ideas (interrogation, affirmation, etc.), which is the function of the English tones to express?[83]

The Author does not give an answer to his question, which works as a provocation to his followers. Daniel Jones was one of the first who tried to give an answer.

4.5.2. *Daniel Jones*

> Jones was a superb teacher, and his staff in the Department were all superb teachers. Great importance was attached in the Department's teaching to *performance* [...]. *General* phonetics as such was hardly ever taught; matters of general theory were discussed only if they arose in connection with these[84].

With these words David Abercrombie celebrated his great teacher, while reconsidering fifty years of studies in phonetics. Daniel Jones, one of the most important English phonetician of the twentieth century, one of the first supporters of the *applied phonetics,* dignified intonation as a "*branch of the phonetic science*". This is one of the reasons why he wrote, in april 1909, the first book entirely devoted to intonation, entitled: *Intonation Curves*[85].

However, only in 1932, at the time of the third edition of *An Outline*[86], Jones produced an exhaustive analysis of intonation, both from the theoretical and the pragmatic point of view. He analysed carefully the entirely bibliography on the subject[87] and arrived at his own

[83] H. Sweet, *A New English Grammar,* cit., p. 179.
[84] D. Abercrombie ed., *Fifty Years in Phonetics. Selected Readings,* Edinburgh University Press, Edinburgh, p. 39.
[85] D. Jones, *Intonation Curves,* cit., p. IV (My italics).
[86] D. Jones, *An Outline...*, cit., p. 279.
[87] Jones's references on the subject are: L.E. Armstrong, I.C. Ward, *Handbook of English Intonation,* cit.; H. O. Coleman, *Intonation and Emphasis,* "Miscellanea Phonetica I to Commemorate the 25th Year of 'Le Maître Phonétique'", 1914, pp. 6-26; R. Kingdon, *Tonetic Stress Marks for English,* "Le Maître Phonétique", 54, 1939, pp. 60-4; R. Kingdon, *The Teaching of English Intonation,* "English Language Teaching", II/4,5,6, 1954; R. Kingdon, *The Groundwork of English Intonation,* cit.; H. Klinghardt, *Sprechmelodie und Sprechtakt,* N. G. Elvert, Marburg in Hessen 1923; H. Klinghardt, G. Klemm, *Übungen in Englischen Tonfall,* Quelle and Meyer, Leipzig 1926 (2nd edit.); J.D. O'Connor, *The Intonation of Tag Questions in*

definition of the terms *intonation* and *stress*. He even found a new satisfactory way of transcribing intonational phenomena: it was the method created by Lilias Armstrong and Ida Ward in their *Handbook of English Intonation*[88]. As far as the simple definition is concerned, that year he wrote:

Intonation may be defined as the variations which take place in the pitch of the voice in connected speech, i.e. the variations in the pitch of the musical note produced by the vibration of the vocal cords[89].

> *Stress* may be described as the degree of force with which a sound or a syllable is uttered. It is essentially a subjective action. A strong force of utterance means energetic action of all the articulating organs; [...]it involves a strong 'push' from the chest wall and consequently strong force of exhalation; this generally gives the objective impression of loudness[90].

Intonation may be *rising, falling or level.* Rising and falling intonations are represented by curves, whereas the level intonation is indicated by dots, to be distinguished from the bigger points used to indicate stress. These signs are put inside a three-lines musical stave[91]. The transcription reminds of Armstrong and Ward's system, who simplified intonational theory reducing it to two essential tunes, called *tune I* and *tune II: tune* I is falling and it is typical of assertions (*ordinary, definite, decided statemets), wh-* questions, exclamtions, and orders; *tune II* is rising and it is used in *yes-no* questions, *polite requests,* and in all the statements which are not so definite as in the case of Tune I. The analysis of these Authors had the advantage of emphasizing some resemblance of meaning or usage in all rising (or falling) pitch contours; this could be particularly useful to foreign students.

Jones appreciated Armstrong and Ward's work and found it so clear

English, "English Studies", XXXVI/3, 1955, pp. 97-105; J.D. O'Connor, *English Intonation Course,* Radiotjänst, Stockholm 1956; H. Palmer, *English Intonation with Systematic Exercises,* Heffer, Cambridge 1922; H. Palmer, G. Blandford, *Everyday Sentences in Spoken English,* W. Heffer, Cambridge 1922; M. Schubiger, *The Role of Intonation in Spoken English,* cit.

[88] L.E. Armstrong, I.C. Ward, *Handbook of English Intonation*, B.G. Teubner, Leipzig/Berlin 1926.

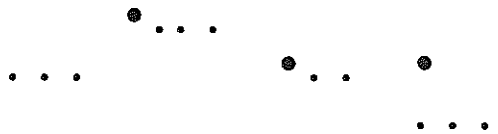
[89] D. Jones, *An Outline...*, cit., p. 275.

[90] *Ibid.*, p. 245.

[91] See Chapter Three.

that he applied it to his own intonational analysis. The result was the distinction between:

tune I (normal form)



tune II (normal form)

His description of intonation may seem even too simple but it should be remembered that teaching intonation was Jones's primary intent, as widely demostrated in Chapter Three. The demands of English-language teaching in the early decades of the twentieth century sometimes produced partial descriptions which, in absence of sufficient theoretical and descriptive research, regularly involved oversimplification and misinterpretation. But this is not Jones's case. His writings always avoided misleading and impressionistic statements, recurred to statistical support, and finally tried to fight against any form of unscientific impressionism that all too often resulted in oversimplification of a complex linguistic situation, or in partial truth the student or the teacher too readily generalize.

4.5.3. *Harold Palmer*

The framework for describing the forms of intonation in the British tradition is largely in the *contour* tradition (cfr. Chapter 2.2. of this volume), that is in the development of intonational researches into three main areas:

1. the division of connected speech into *intonation-groups;*
2. the selection of one syllable within one word in each intonation-group to bear the principal accent, or *nucleus,* or *tonic;*
3. the choice of a tune within the intonation-group *(intonation-tone).*

The foundation of the so-called British *nuclear approach* was given by Harold E. Palmer[92].

[92] For a discussion on this topic see chapter I.3 of Robert Ladd Jr Thesis (D.R. Jr Ladd, *The*

In 1924 he published *English Intonation,* where he introduced the terms *nucleus, head, tail*[93]. The Author started from the apparently obvious idea that

> *we all recognize immediately and without effort each of the attitudes associated with the tones*; we use them and respond to them, we express or conceal our thoughts by choosing the tone or tone compound most likely to serve our purpose"[94].

In his opinion we do all this with such complete unconsciousness that most of us are convinced either that there is no tone-system in English, or that there are tones but no system, or that the English tone-system is very elementary.

The pedagogical intent is very strong in Palmer's work. The book is, in fact, "especially designed [...]for the use of foreign students of spoken English".[95] The student who wishes to use the English language 'in the manner of English speakers' cannot ignore the phenomena of its intonation and pronunciation. The two things, pronunciation and intonation, are so bound one with each other that it is useless to teach or to learn one without the other.

The theoretical part of the volume is entirely devoted to teachers' training. They should be teachers of *oral English*, and know perfectly the segmental and prosodic foundations of the English language:

Stucture of Intonational Meaning, PhD Thesis, Cornell University, University Microfilm International, London 1978). While describing the main topics of the British vs the American school of intonation, the Author says (pp. 13-26): "Since the mid-thirties, following Palmer 1922, it has become usual to divide the 'tune' into at least two parts, the part preceding the sentence stress (usually called 'the head') and the remainder, consisting of the 'nucleus' (the syllable with sentence stress) and optionally a 'tail' (any syllables after the sentence stress)".

[93] H. E. Palmer, *Op. Cit.*

[94] *Ibid.,* p. VIII. My italics. Against this statement G. Faure says: "[...]il est bien certain que cette maîtrise intuitive des tons [...]aboutit rarement à une notion claire et objective de *ton*, comme c'est, en effet, beaucoup plus facilement le cas lorsqu'il s'agit des phonèmes [...]. La grande difficulté que nous éprouvons à définir objectivement les tons, fût-ce les tons de notre langue, tient, selon nous, essentiellement à ce que nous ne disposons, pour les analyser, d'aucune base articulatoire précise qui puisse nous servir de référence" (G. Faure, *Op. Cit.,* pp. 53-54).

[95] H. Palmer, *Op. Cit.,* p. V.

> A teacher of pronunciation cannot do efficient work if he is ignorant of the nature (nay, of the very existence) of the sounds of the language he is teaching; but to teach foreigners to pronounce English without teaching them to intone is an unbalanced procedure. And yet a teacher of intonation cannot do efficient work if he is ignorant of the nature (nay, of the very existence) of the tones of the language he is teaching[96].

The teacher is a sort of *performant* that the student will then imitate. *Imitation* is the starting point in the process of language learning. The foreign student will be taught to discover the tones which are *unfamiliar* to him, because they are not used in his/her own language.

The most interesting and innovative part of Palmer's work is the theoretical description of the so-called *tone-group*. It is defined as a *word or series of words in connected speech containing one and only one maximum prominence*[97]. Each tone-group contains one nucleus, that is one stressed syllable on the most prominent word (sometimes called also *sentence stress).* Each nucleus may be followed by a *tail,* or preceeded by a *head (inferior, superior, scandent, or heterogeneous).*

In British English there are four typical *nucleus tones:*

- *falling*
- *high-rising*
- *falling-rising*
- *low-rising*

One tone-group corresponds to each nucleus-tone, as it follows:

- *Tone-group 1:* falling nucleus tone
- *Tone-group 2:* high-rising nucleus tone
- *Tone-group 3:* falling-rising nucleus tone
- *Tone-group 4:* low-rising nucleus tone

[96] *Ibid.*, p. VI.
[97] *Ibid.* p. 7.

In *A Grammar of Spoken English* Palmer improved this classification, describing the intonation of British English in terms of:

1. two falling tones: *high-falling,* and *low-falling*
2. two rising tones: *high-risin* ,and *low-rising*
3. one rise-fall-rise tone[98].

The analysis of the functions of each tone-group is even more interesting than the description of its form[99]. The function of each kind of tone-group may be resumed as it follows:

- *Tone-group 1 (falling)*

It covers a wide range of functions, from "categoric statements having a conclusive or final character" (namely, *answer to questions, contradictions, announcements),* to *wh- questions,* commands.

- *Tone-group 2 (high-rising)*

It is mainly used for *yes-no questions,* but it sometimes appears in *wh- questions* which have been already asked and answered (the so-called 'repeated questions'), or in statements implying doubt, hesitation, or uncompleted thought.

- *Tone-group 3 (falling-rising)*

It is difficult to define one precise function of this tone. It is used exclusively for statements and orders, never for questions. It seems to express some contrast, often indicated with *but, although, even if, but all the same, ecc.*

- *Tone-group 4 (low-rising)*

Palmer defines it as *a reassuring intonation.* It seems to convey the idea of a perfect agreement between the hearer and the speaker, or to have "a calming or soothing effect on the hearer".

[98] H. Palmer, *A Grammar of Spoken English on a Strictly Phonetic Basis,* Heffer and Sons, Cambridge 1924, p. 14.
[99] *Ibid.,* pp. 72-86.

In *A New Classification of English Tones*(1933)[100] Palmer reconsidered the tonal classification published ten years before. He realised that the tone-groups described in *English Intonation* were too difficult to be used for a pedagogical aim. For this reason, he created a system of six fixed combinations of tones, coupled with original names, which could be easily remembered. The six *tone patterns* typical of the English language are listed in *A Grammar of Spoken English* in the following order[101]:

1. cascade (superior head + low-falling nucleus-tone)

It is the most frequent. It is used for suggestions *(let's go there together),* orders *(come and sit down), wh-* questions *(where does he live?),* rhetorical questions.

2. dive (inferior head + high-falling nucleus-tone)

It is the intonation of assertions (*it isn't Joe's; it's mine!);* it often used in imperative sentences, especially in emphatic forms (*if you don't like doing it, don't do it!);* some particular questions require it *(never mind where I was, where were you?).*

3. jump (scandent head + low-falling nucleus-tone)

Exclamations usually adopt this intonation to intensify the strength of the word which represents the nucleus (*how strange! What a large one!).*

4. wave (superior/inferior head + high-rising nucleus-tone)

It is the intonation of *yes-no questions* (*did you do that?)* and echo questions, in which the subject answers to a question in such a surprised way that he repeats the question itself (for example: someone asks in

[100] H. Palmer, *A New Classification of English Tones,* Institute for Research in English Teaching, Tokio 1933.
[101] *Ibid.,* pp. 18-25. The Author of the examples in italics is Palmer.

aregular *tone-pattern I*: *What is it?*, and someone else answers with astonishment: *What is it? = surely you know what it is without asking!)*[102].

5. snake (superior head + rising-falling-rising nucleus-tone)

According to Plamer, this is the msot difficult tone to describe, from a functional point of view. It is always used in an affirmative or imperative sentence but it implies the idea of opposition, or concession. Three examples:

- *that is not what I mean (although it may be what you mean)*
- *I don't say I wanted to go (but I had to go)*
- *don't come too late (even if you come a little late)*[103].

6. swan (scandent head + low-rising nucleus-tone)

It is similar to the *tone IV* described in *English Intonation.* It has a *reassuring* function.

Palmer's classification was not very successful. The six tones were considered too complicated to be taught. Nevertheless, the volume *a New Classification of English Tones* had great diffusion and was adopted as *the* English textbook in Japanese secondary schools until the Sixties.

[102] See also the so-called *repeated questions,* "i.e. a request for the repetition of the answer to a question previously asked by a speaker and answered to another person" (*ibid.*, p. 22).
[103] If we make a comparison of the same *tone-pattern* in different languages we shall notice that: "This tone [...]corresponds in meaning to what has to be expressed in other languages by specific words or collocations, e.g. (French) *tout de même, en effet;* (German) *doch, ja, eingentlich;* (Japanese) *yahari, yappary*" (*Ibid.*, p. 23, n. 1).