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**ENGLISH/AMERICAN INTONATION
AND ITS HISTORICAL FOUNDATIONS**

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To Francesco

INTRODUCTION

Λόγος δυνάστης μέγας ἐστίν, ὃς μικροτάτῳ σώματι καὶ ἀφανεστάτῳ θεϊότατα 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' we 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, we hope that our approach will not. Francis Petrarch's words are an encouragement to us, 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 our 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 us 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, our 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. It is high time that its historical value was emphasized.

The ideas presented in this volume have both influenced and been influenced by the results of a 'Tesi di Dottorato' on English Intonation discussed in Milan in 1996, by the courses we have taught in English Linguistics in the last three years and by some debates with our colleagues at the Faculty of Foreign Languages and Literatures. I'm particularly indebted to the Rhetoric Society of America, to its President

* 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 Univ. Press, Ithaca and London 2000, p. 17.

prof. Frederick Antczack of Iowa University and to prof. Robert Gaines of the University of Maryland, for all the suggestions and hints given during the 2000 RSA Conference in Washington D.C., which have been fundamental to the writing of Chapter Four.

By adopting an evolutionary and historical emphasis in our work, we 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, we need 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 our strong interest for the sources, we have explored British and American 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 must be fundamentally divided into two 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. Our 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.

CHAPTER ONE

'INTONATION': THE PROBLEM OF DEFINITION

The semantic value of the word *intonation* is our main concern here. Starting from the apparently obvious consideration that by *intonation* we mean the «rise and fall of the voice pitch»¹, we will concentrate on the wide range of other possible definitions given in:

- a) current monolingual English dictionaries;
- b) current monolingual on-line dictionaries;
- c) encyclopaedic dictionaries.

The research does not pretend to be exhaustive, since the sources (often available both in the traditional and in the on-line form) 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 our 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 We have chosen one of the simplest definitions given in current monolingual dictionaries. The source is: *WordNet (v) 1.6 (wn)*. This is the main definition we refer to throughout our research; of course we shall not consider a secondary definition of the word as «thundering; a roaring or rumbling as of a thunder» (*OED Online*, Oxford University Press 2000, s.v. *intonation 2*: «1658 PHILLIPS, Intonation, a thundering or making a terrible noise. 1755 in JOHNSON. 1855 MAYNE Expos. Lex., Term applied to the gurgling noise produced by the movement of flatus in the bowels: intonation»).

1.1. *Etymology of the word*

The word *intonation* appeared for the first time in a French text in 1372².

Its origin is double: it comes from the Latin *intonare*, which – in its turn – takes origin from the Greek τόνος. Unfortunately, the semantic relationship between the two sources is false. In fact, the Latin word *intonare* 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'³. 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 ὑφίσσθαι (to lower one's voice), where τόμος refers to the 'loudness' of the sound, and Herodotus speaks of poems written ἐν ἑξαμέτρῳ τόνῳ, that is in hexameters⁴.

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 we find it in the far less common meaning of «thundering; roaring or rumbling as a thunder» (Latin etymology)⁵. 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 τόμος is described as:

² 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)*, 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».

³ E. Boisacq ed., *Dictionnaire étymologique de la langue grecque, étudiée dans ses rapports avec les autres langues indo-européennes*, Carl Winter's, Heidelberg; C. Klincksieck, Paris 1938, s.v. τόμος.

⁴ L. Rocci, *Vocabolario greco-italiano*, Società Editrice Dante Alighieri, Firenze 1971 (23rd edit.), s.v. τόμος. The dictionary suggests some other interesting examples of the usage of the word τόμος in: Demosthenes 319, Plato: Republic 617d; we underline 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 demonstrates the existence of a plural form in Aristotle's *Rhetoric* (3, 12, 4).

⁵ *OED Online*, Oxford University Press 2000, s.v. *intonation* (2).

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'⁶.

The etymological analysis has guided us towards the original meaning of the word. We shall consider now the evolution of the items through the centuries, starting from the first case attested.

1.2. 'Intonation': 1500-1900

The Oxford Dictionary of English Etymology indicates the 16th 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 instrument⁷. By that time, the word referred only to the musical domain, indicating any «opening phrase of a plaining melody». The dictionary recognizes also a secondary meaning of the word, that is 'modulation of the voice in speaking', which was attested during the 17th century. Nevertheless, in 1690 the French *Dictionnaire Universel* by A. Furetière still defined it exclusively in its musical sense:

Action par laquelle un chœur 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 phrase⁸.

During the 18th 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*,

⁶ E. Boisacq ed., *Op. Cit.*, s.v. τόνος.

⁷ C.T. Onions ed., *Oxford Dictionary of English Etymology*, Oxford at the Clarendon Press, London 1966, s.v. *intonation*.

⁸ A. Furetière, *Dictionnaire Universel, Contenant généralement 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, Geneva 1970, s.v. *intonation*.

the first pedagogical treatise aimed at giving a guide to those who wanted to read and speak well⁹.

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 precentos in our cathedral [...]¹⁰.

During the 19th 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 pictures¹¹.

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 pause¹².

He described *intonation* as something different from *melody*. In fact:

⁹ 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), The Scolar Press Limited, Menston 1970.

¹⁰ J. Steele, *An Essay Towards Establishing the Melody and Measure of Speech, to Be Expressed and Perpetuated, by Peculiar Symbols* (1775), The Scolar Press Limited, Menston 1969, p. 15.

¹¹ K. Behnke, *The Speaking Voice*, Curwen & Sons, London 1897, p. 98.

¹² Cfr. J. Rush, *The Philosophy of the Human Voice, Embracing its Physiological History*, Grigg and Elliott, Philadelphia 1893 (7th edit.), p. 84.

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 from this precision is called singing, or playing, and it may be hereafter, *Speaking out of tune*¹³.

Rush's definition of *intonation* must be condemned nowadays, since he identified musical rhythm with speech rhythm. Actually, 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 20th 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*¹⁴: in the chapter entitled *Melody* he stated 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 does¹⁵.

1.3. 'Intonation' in the Oxford English Dictionary

The *Oxford English Dictionary* (OED)¹⁶ 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.

¹³ *Ibid.*, p. 85.

¹⁴ E.W. Scripture, *The Elements of Experimental Phonetics*, E. Arnold, London 1902.

¹⁵ 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 chapitre [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».

1.3.1. *Four cases*

We shall consider here the four definitions and all the possible combinations of the word with other related items¹⁷.

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 replied 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].

¹⁶ *The Oxford English Dictionary*, vol. V, Oxford at the Clarendon Press, Oxford 1933, 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>).

¹⁷ From now on the acronym *OED2000* at the end of quotations indicates the source (<http://dictionary.oed.com>), s.v. *intonation* (1), *intonation* (2), including *compounds and derivatises of 'intonation'*.

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

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. xlvi, 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 lyric 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 we find the first example¹⁸ of a third meaning of the word, which 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 as a part of this definition. The phrase is used in 1878 Grove's *Dictionary of Music* («*On instruments of fixed intonation C × = D [etc.]*» [OED 2000]).

4. As a fourth definition of 'intonation', we read in the OED:

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

¹⁸ The quotation from Burney says: «The organ wants expression and a more perfect intonation».

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 in *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»¹⁹.
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»²⁰.

¹⁹ C. Barber, *Present Day English*, iii, p. 50, quoted in *OED* (on-line edition), cit., s.v. *intonation*.

²⁰ 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 utterance²¹.
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»²².
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»²³.

Among the most frequent words derived from *intonation* we can enumerate some nouns, verbs, adjectives and one adverb.

NOUNS: intoneme, intonement

8. **intoneme.** See *intonation phoneme*.
9. **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].

²¹ 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*).

²² OED (on-line edition), cit., s.v. *intonation*.

²³ M. Schubiger, *The Role of Intonation in Spoken English*, Heffer, Cambridge 1935, p. 9.

VERBS: intonate, intone

10.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 undoubtedly 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].

11.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

12.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].

13.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

14.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 the American dictionaries, that in some cases tend to underline the musical

meaning before the linguistic one, in some others do not. In fact, 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 speech²⁴.

The fourth meaning did not appear in the *Webster's Revised Unabridged Dictionary*, dated 1913²⁵. 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 part²⁶.

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 us of some explanations of *intonation* given in contemporary English encyclopaedic dictionaries.

1.5. '*Intonation*' in some encyclopaedic dictionaries

The British approach and the American approach to the linguistic and phonetic study of intonation are substantially different. As we shall see in Chapter Two, the so-called *British School* describes it in terms of

²⁴ *Webster Dictionary*, Merriam-Webster Inc. 2000 (<http://www.m-w.com>), s.v. *intonation*.

²⁵ *Webster's Revised Unabridged Dictionary (1913)* (*web1913*), s.v. *intonation*, in <http://dict.org>.

²⁶ *The American Heritage Dictionary of the English Language* (3rd edit.), Houghton Mifflin Company, s.v. *intonation*, in <http://dictionary.com>.

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*²⁷.

Walker's words are so clear and his explanation so complete that some more recent definitions of the word sound even 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 monotonous²⁸.

A Comprehensive Grammar by R. Quirk et alii gives a more precise definition of *intonation*. As a matter of fact, this prosodic feature cannot be studied alone, but in relation to *stress* and *rhythm*.

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

²⁷ J. Walker, *Op. Cit.*, p. 7.

²⁸ K. Wales, *A Dictionary of Stylistics*, Longman, London-New York 1989, p. 260.

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'²⁹.

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. In fact, 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 uttered by a low-pitched voice may begin: 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 concerned³⁰.

D. 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*³¹.

²⁹ R. Quirk et alii, *A Comprehensive Grammar of the English Language*, Longman, London-New York 1985, p. 1588.

³⁰ For a discussion on this topic see: *Ibid.*, pp. 1603-1604.

³¹ D. Crystal, *The Cambridge Encyclopedia of Language*, Cambridge University Press, Cambridge 1987, part IV, p. 173. My italics.

We perfectly agree with Crystal (D. Crystal, *Prosodic Systems and Intonation in English*, Cambridge University Press, Cambridge 1969, p. 108) who, against Davis' opinion (A.H. Davis, *Modern Acoustics*, Macmillan, 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).

Some scholars tried to use a musical notation to transcribe pitch differences in speech, but this came out to be fundamentally misleading (see, in particular, 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*³².

1.6. Towards a definition

The analysis has tried to highlight how strong the dichotomy between *musical intonation* and *oral intonation* (once known as *melody of speaking*) is. The etymology of *intonation* has shown clearly both the musical and the linguistic origins of the of the word.

Although the dichotomy is recognized nowadays, nevertheless the importance of *oral intonation* is generally underestimated. The subject requires here a deeper discussion, which will take place in the next chapter.

³² 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.

difference in intonation .
perfect. false intonation :
phrase and intonation lurking in the speech..of very
27 The intonation of the *flue-pipes.
of louder intonation and somewhat larger scale.
place of intonation in a generative grammar of
of louder intonation and somewhat larger scale.
dependent upon intonation . Great, the greatest, gross,..and
to the intonation , surprise, wonder, joy, suspicion,
Palmer Eng. Intonation v. 17 Any syllable or
according to intonation , admiration, acquiescence, indignation, d
according to intonation . In some later quotes.
High-rising [intonation] for impatient question.
difficulty is intonation in high-lying passages.
according to intonation , surprise, admiration, exultation (often
sort of intonation .
to the intonation [etc.].
on the intonation ; that is..on the elevation
to the intonation) irony, contempt, amazement, incredulity
variety of intonation .

Fig. 1.1a – Concordances of the Word *Intonation*
in the Oxford English Dictionary (on-line edition, year 2000).
Source: <http://dictionary.oed.com>

of secondary intonation (accent) in the Slavic languages.
with an intonation of exclamation or surprise.
to the intonation, various emotions, as
Palmer Eng. Intonation p. viii, We all recognize
conveyed by intonation contours.
Function of Intonation.
Role of Intonation 1 The amount of *breathforce
modes of intonation.
2. Accent, intonation, tone. Obs.
A singing intonation or modulation of the voice
or drawling intonation', due to influence of
a 'chortling' intonation. Also n., an act
in the intonation of a few syllables.
and the intonation contour.
and the intonation is often deliberately indefinite... Characteristic
with studied intonation and gesture.
upon comma intonation alone.
obtaining exact intonation on a keyboard instrument.
Liston Perfect Intonation 27 The Euharmonic Organ is
the countenance), intonation (of the voice) as indicating

Fig. 1.1b – Concordances of the Word *Intonation*
in the Oxford English Dictionary (on-line edition, year 2000)
Source: <http://dictionary.oed.com>

Conrad, Joseph, 1857-1924: The Arrow of Gold : A Story Between Two Notes / by Joseph Conrad 1919 : 7 matches

Clouston, J. Storer: Count Bunker 1905 : 5 matches

Dana, Marvin: Within the Law 1913 : 5 matches

Alcott, Louisa May, 1832-1888: Little Women 1869 : 1 matches

Aldrich, Thomas Bailey, 1836-1907: Ponkapog Papers. 1904 : 1 matches

Barr, Amelia E.: The Man Between: An International Romance 1906 : 1 matches

Beerbohm, Max, Sir, 1872-1956: Zulcika Dobson / Max Beerbohm ; Introduction by Francis Hackett 1911 : 1 matches

Bierce, Ambrose: Can Such Things Be 1893 : 1 matches

Bunin, Ivan: The Gentleman from San Francisco 1918 : 1 matches

Burroughs, Edgar Rice: The Chessmen of Mars 1922 : 1 matches

Burgoyne, Thomas H.: The light of Egypt; or, The science of the soul and the stars 1900 : 1 matches

Canfield, Dorothy: The Bliss of Solitude March 1906 : 1 matches

Canfield, Dorothy: The Piano / By Dorothy Canfield; Author of "The Rescue," "The Story of Ralph Miller," ETC. 1907 : 1 matches

Fig. 1.2 – The Word 'Intonation'

Some results of the search for the word 'intonation' within ninety works dated 1800-2000

Source: *The Modern English Collection at the University of Virginia Electronic Text Center*
 (<http://etext.virginia.edu>)

CHAPTER TWO

ENGLISH/AMERICAN INTONATION: AN INTRODUCTION

The role of intonation in language is a subject of considerable controversy. Some linguists consider it as 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 disagreement also concerning the elements which make up intonation. Greg Deakin reminds us of 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 our work, by 'intonation' we mean the *linguistic use of pitch in utterances*, or the rise and fall of the pitch of the voice in spoken language. We are indebted to Paul Tench for this definition, which insists on the three main components of each intonational realization:

¹ G.T. Deakin, *Indirect Speech Acts and Intonation*, M.A. Thesis, The Australian National University, Canberra 1981, p. 28. For a discussion on Deakin's theory see: A. Zanola Macola, *Atti linguistici indiretti e intonazione*, «L'Analisi Linguistica e Letteraria», 1, 1999, pp. 245-258.

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»²;
3. *utterances*, expressed in their oral form, whose pitch variation contributes to the meaning of a text.

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 we may find the roots of the contemporary distinction between British and American intonational studies;
- v) when the 'scientific' study of intonation was born;
- vi) which evolution it had during the twentieth century.

Our 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 our main 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 eighteenth and nineteenth centuries manuals of elocution and finally ended as an important part of twentieth-century phonetics³.

² P. Tench, *The Intonation Systems of English*, Cassell, London 1996, p. 2.

³ The entire bibliography for this subject will be discussed in the next two chapters (*Chapter Three: British Historical Foundations; Chapter Four: American Historical Foundations*), where the historical background to intonational studies will be widely treated.

In the sixteenth and seventeenth centuries John Hart, George Puttenham, and Charles Butler⁴ 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 Walker⁵, 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: his use of the term ‘emphasis’ seems to anticipate the modern concept of ‘nucleus’. *Emphasis* is a key word in his theory: if it is *emphasis of passion*, it applies to the whole sentence; if it is *emphasis of sense*, it applies to one word in opposition to another expressed in the preceding context (the latter may recall the modern opposition between ‘broad focus’ and ‘narrow focus’, or ‘contextually-given’ and ‘situationally-given’)⁶. In the nineteenth century the elocutionary manuals burgeoned both in America, where the most influential work was that of James Rush⁷, and in Great Britain, where a vast quantity of books were written on this subject.

In the early part of the twentieth century Daniel Jones⁸ 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

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), The Scholar Press Limit., 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* (1787), cit.

⁶ For a discussion on this topic see: A. Cruttenden, *Intonation*, Cambridge University Press, Cambridge 1997².

⁷ 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*, [...], cit.

⁸ D. Jones, *Intonation Curves*, Teubner, Leipzig; Id., *An Outline of English Phonetics*, Cambridge University Press, Cambridge 1918.

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 Ward⁹ 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'¹⁰.

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*¹¹ 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*¹², 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*

In Great Britain, phonetics was dominated in the nineteenth century 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*¹³, 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. As a matter of fact, Bell also

⁹ L.E. Armstrong, I.C. Ward, *Handbook of English Intonation*, Teubner, Leipzig-Berlin.

¹⁰ See chapters 3.5.1, 3.5.3.

¹¹ E.W. Scripture, *The Elements of Experimental Phonetics*, cit.

¹² K. Pike, *The Intonation of American English*, cit.

¹³ A.M. Bell, *Visible Speech*, Simpkin and Marshall, London 1867 (see chapter 4.2.1.1.)

employed another type of intonational transcription, in which some 'tadpole-like' symbols¹⁴ were placed over the accented syllables. The two transcriptions adopted by Bell seem to anticipate the twentieth-century division into 'broad and narrow', or 'interlinear-tonetic and tonetic-stress' transcriptions.

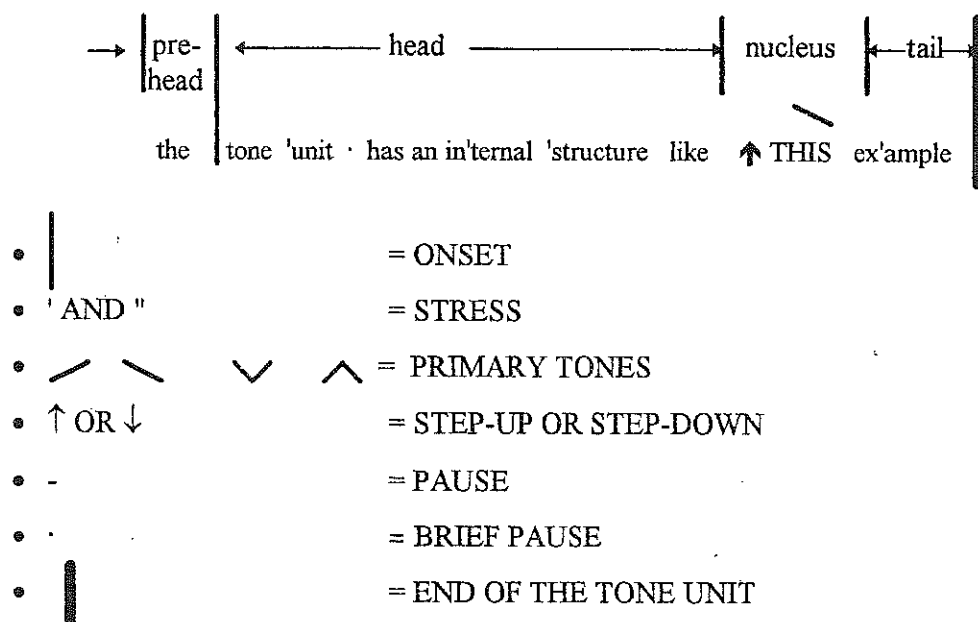


Fig. 2.1 – Crystal's Intonational System

The link from Bell to the twentieth century was provided by Henry Sweet¹⁵, Bell's best follower. Sweet was initiated into phonetics by him, and followed him in most of what he said about intonation, apart from the use of the word 'key' (high or low) and some discussion of regional differences.

The approach of Bell was taken up again by Harold Palmer¹⁶, who called *nucleus* the syllable of maximum prominence and the beginning of

¹⁴ The expression is borrowed from: A. Cruttenden, *Op. Cit.*, p. 27.

¹⁵ H. Sweet, *A Handbook of Phonetics*, Clarendon Press, Oxford 1877. Further references are given in chapter 3.5.1.

¹⁶ H.E. Palmer, *English Intonation with Systematic Exercises*, Heffer, Cambridge 1922. Further references are given in chapter 3.5.3.

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 Cruttenden¹⁷ most recently, the so-called *British school of intonational studies* chose to describe intonation in terms of *tone-units*, *nuclei*, and *nuclear tones*.

The main features of the British tradition, including some important divergences between the different writers, are summarized in the volume *Prosodic Systems and Intonation in English* by David Crystal¹⁸. 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. The representation of pitch movement in terms of 'pitch levels' is rejected. *Pitch contours* are basic to the understanding of intonation. Therefore, before we recognize different degrees of falling intonation, we first have to 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'¹⁹. The smallest unit which makes a tone-unit consists of a syllable, carrying a glide of a particular kind: this is called in the British tradition the *nucleus*

¹⁷ R. Kingdon, *The Groundwork of English Intonation*, Longmans, Green & Co., London 1959; J.D. O'Connor, G.F. Arnold, *Intonation of Colloquial English: A Practical Handbook*, Longmans, London 1961; M.A.K. Halliday, *A Course of Spoken English: Intonation*, Oxford University Press, London 1970; A. Cruttenden, *Op. Cit.*

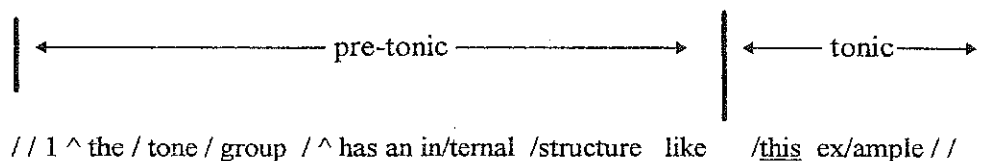
¹⁸ D. Crystal, *Prosodic Features and Intonation in English*, Cambridge University Press, Cambridge 1969, pp. 34-44, 210-211.

¹⁹ 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.

(or 'tonic' syllable, in Halliday's theory)²⁰. 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. Halliday makes a simpler division, exemplified in fig. 2.2.



- // = TONE-GROUP BOUNDARIES
- / = PROMINENT SYLLABLES (usually stressed)
- — = NUCLEUS
- 1 = FALLING
- ^ = SILENT BEAT

Fig. 2.2 – Hallyday'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*

²⁰ *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'».

three, i.e. falling tone + level tone; and 53 = five three, i.e. rising-falling + level tone), whereas Kingdon adopts twenty-six types (fig. 2.3)²¹.

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 IV + IH IV + ILE*
11. IV + II IV + III V + II V + III IL + IV II + IV III + IV IV + IV
12. V + IV IL + V II + V III + V IV + V V + V

* E = *emphatic*

Fig. 2.3 – Kingdon's Intonational System

²¹ *Ibid.*, p. 218; M.A.K. Halliday, *Op. Cit.*, p. 12; R. Kingdon, *Op. Cit.*, pp. 123-130.

The lack of a well-defined theory of intonation unfortunately has led in some cases to an 'ill-defined terminology'²². There is sometimes confusion as to whether a writer is talking in phonetic or phonological terms, and definitions of the basic concepts are in some texts inadequate.

2.3. *American intonational studies*

James Rush, with his *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' – anticipating the modern distinction between 'unmarked' and 'marked'.

Apart from Rush's work and the descriptive tradition developed by elocutionists, little was written on the nature and function of intonation, until Leonard Bloomfield²³. He was the first to apply the techniques of segmental phonemic analysis to intonation. 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 another²⁴.

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 distinctions²⁵.

²² The expression is borrowed from D. Crystal, *Op. Cit.*, p. 40.

²³ L. Bloomfield, *Language*, Holt, New York 1933 (esp. Chapter Seven).

²⁴ *Ibid.*, p. 109.

²⁵ *Ibid.*, p. 114.

After Bloomfield, the early work of Bloch and Trager produced one of the most rigorous theories of prosodic structures yet to be proposed²⁶, together with Pike's *Intonation of American English*. Both works analysed pitch contours into sequences of four pitch *levels* and three pitch *terminals* 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 Hallyday's, in that every prominent syllable is reckoned to contain a 'primary contour', while the non-prominent syllables preceding it are reckoned to constitute a 'pre-contour'. Therefore, the Author 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 by Deakin as in fig. 2.4.

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)
- ' = STRESS (redundant unless emphatic)
- / = TENTATIVE PAUSE
- // = FINAL PAUSE
- 1,2,3,4 = LEVELS

Fig. 2.4. - Pike's Intonational System

²⁶ B. Bloch, G.L. Trager, *Outline of Linguistic Analysis*, Special Publications of the Linguistic Society of America, Baltimore 1942.

The arbitrariness of having four levels eventually led to a new approach based on only two levels, proposed by Janet Pierrehumbert²⁷. 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.

²⁷ J.B. Pierrehumbert, *The Phonology and Phonetics of English Intonation*, Indiana University Linguistic Club, Bloomington 1987.

CHAPTER THREE

BRITISH HISTORICAL FOUNDATIONS

In this and the following chapters we will be concerned with past works on English intonation. A comprehensive chronological review of the progress of knowledge in this field would be almost impossible; nevertheless, some partial analyses have been proposed yet. We have some examples of metrical history in Saintsbury's or in Omond's treatises; or, we can read some important pages about early works on prosodic features in *Prosodic Systems and Intonation in English* by Crystal, in *The Intonation of American English* by Pike, in *Intonation* by Cruttenden¹, and in almost all the most important recent books on intonation.

We shall start from these reference books to trace the boundaries of our analysis, which will outline the development of the main approaches to intonation both in Britain (see this chapter) and in America (see the following chapter). Not only shall we introduce a critical survey of the most relevant works, historically, but we shall also underline 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 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

¹ D. Crystal, *Prosodic Systems and Intonation in English*, cit.; K. Pike, *The Intonation of American English*, cit.; A. Cruttenden, *Intonation*, cit.

here: all these works aimed at dignifying and 'beautifying' the English language.

3.1. *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 not².

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 rhythm 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*.

3.1.1. *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 in connection with some discussions about *punctuation marks*, or about rules for their usage. In sixteenth-century books of grammar, rhetoric,

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.

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 phrase³. 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 do we find a systematic description of all the possible punctuation marks. 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 needful 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 numbere is seven, whose figures folow /, : / . / ? / ! / O / ¶ √ their names and power doo folow in order⁴.

Hart, one of the first English writers on spelling reform and undoubtedly one of the greatest authorities on pronunciation⁵, 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 English 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 ed., *In Honour of Daniel Jones. Papers Contributed on the Occasion of his 80th Birthday*, Longmans, London 1964, p. 242; G. Faure, *Recherches sur les caractères et le rôle des éléments musicaux dans la prononciation anglaise (Essai de description phonologique)*, Thèse principale pour le Doctorat ès Lettres, Didier, Paris 1962, p. 2.

3.1.1.1. 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 English 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 Ellis, Jespersen, and more recently Danielsson and Dobson⁷. 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

⁶ J. Hart, *The Opening of the Unreasonable Writing...*, cit.; Id., *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 Scolar Press Limit., Menston 1969; Id., *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), p. 63, 77, 82.

⁷ A.J. Ellis, *On Early English Pronunciation*, Trübner & Co., London 1869; O. Jespersen, *John Hart's Pronunciation of English*, *Anglistische Forschungen* 22, Heidelberg 1907; E.J. Dobson, *Op. Cit.*; B. Danielsson, *Op. Cit.*

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

«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 'Howe Some Men Maintaine our Abused English Writing'), the Author wonders why present spelling is kept, if this doesn't 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 sentence¹¹.

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

⁹ *Ibid.*, f. 9.

¹⁰ *Ibid.*, f. 14.

¹¹ *Ibid.*, f. 42. My italics.

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 given which might contain the slightest hint of intonational meaning¹². 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 others¹³.

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 them¹⁵:

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*.

- 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».
- 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 end 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. Not only in *An Orthographie* did he insist on this aspect, but also in his 1569 treatise, where we can read:

*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. Here we have the marks used by Hart to indicate these processes¹⁷.

¹⁶ Id., *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.

'	<i>sharp tune</i>	(strong stress)
`	<i>flat tune</i>	(weak stress)
^	<i>time</i>	(length)
'	<i>turner</i>	(omitted letters)
-	<i>joiner</i>	(linking)
..	<i>sundrer</i>	(separation of syllables)

The last three will later on become: *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.

3.1.1.2. 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* we can find some guidelines for propriety of writing, reading and speaking. It is in that context that punctuation is depicted, as

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) and London 2000, pp. 203-222.

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 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 function¹⁹.

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 1575²². Unfortunately, we cannot define 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

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.

punctuation marks in terms of length of shortness of a corresponding pause²³.

3.1.2. *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 *Liturgical Influence on Punctuation*, Peter Clemoes underlines this peculiar aspect:

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 Psalms²⁴.

Medieval liturgy had a system of *musical notation* (*neums, virga, punctum, clavis, podatus, porrectus*) and of *liturgical notation* (*tuba, positurae, punctus circumflexus, punctus elevatus, punctus versus, punctus interrogativus*). We will reproduce in fig 3.1 the symbols used to represent both musical and liturgical notation²⁵.

²³ B. Jonson, *Op. Cit.*, p. 4; S. Daine, *Op. Cit.*, p. 70.

²⁴ P. Clemoes, *Liturgical Influence on Punctuation in Late Old English and Early Middle English Manuscripts*, Department of Anglo-Saxon Occasional Papers n.1, Cambridge 1952, pp. 7-8.

²⁵ The source for fig. 3.1 and for the description of the single symbols is: *Ibid.*, p. 3-5.

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. As shown in fig. 3.1 '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)
- *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 us of the contemporary 'tones and contours'²⁶.

²⁶ For a discussion on this topic see: D. Crystal, *Op. Cit.*, p. 22.

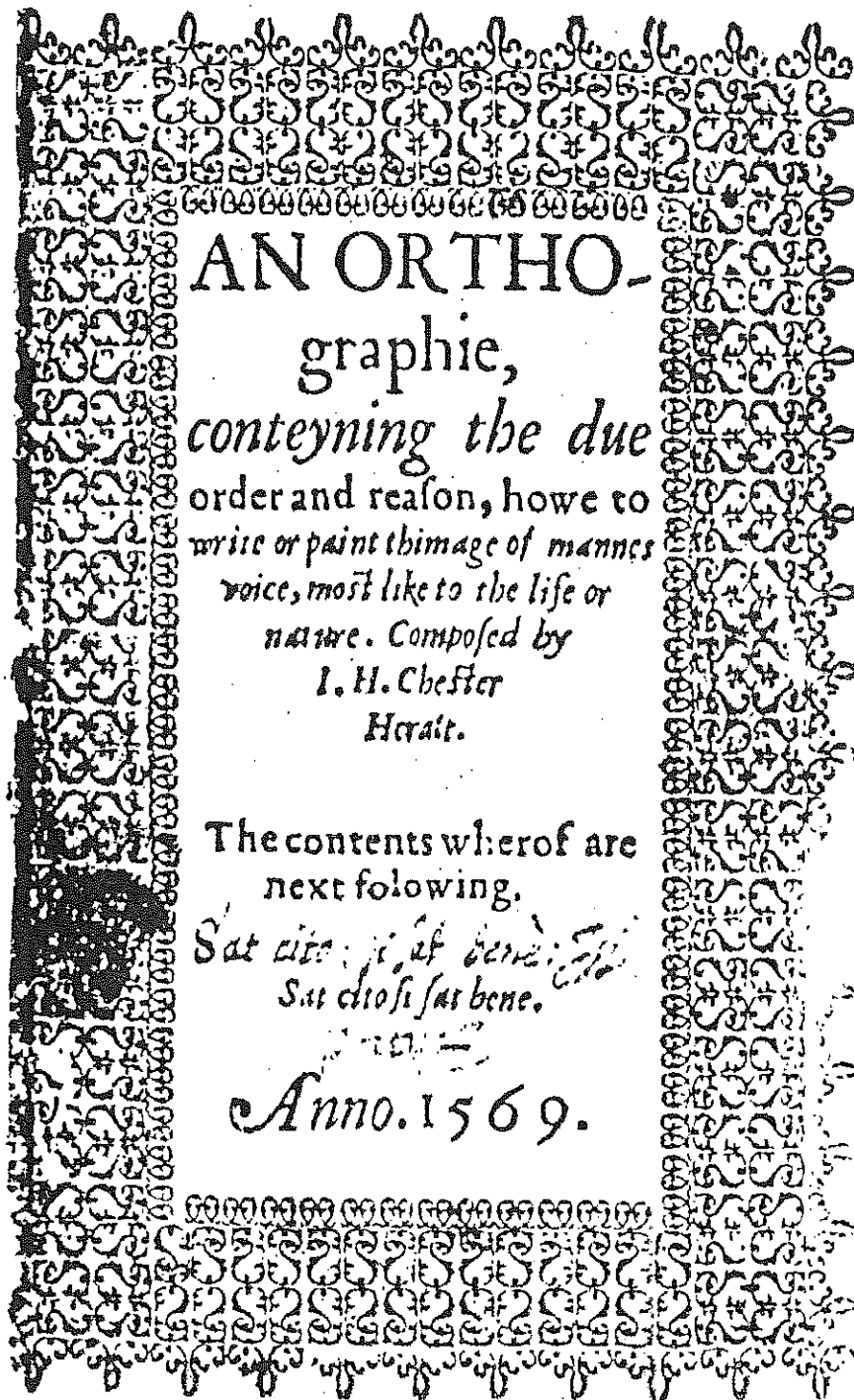


Fig. 3.2 – Front Cover of *An Orthographie* (1569)

3.2. *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). The researcher we are referring to is Charles Butler.

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

The Author we are going to study provides a turning point for both the studies on punctuation and on intonation and rhythm. He gave the first connected 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 affirms:

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 points²⁷.

²⁷ C. Butler, *Charles Butler's English Grammar*, cit., p. 54. My italics. All the quotations from Butler's original writing have been changed to normal spelling.

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

3.2.1.1. 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 insists throughout his book, which is divided into four chapters. Chapter One (*Of the Letters*) describes how vowels and consonants are produced (fig. 3.3). Chapter Two (*Of Syllable*) gives 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, and therefore it is on this last chapter that we shall concentrate.

De triple Alpabet:
 Containing in eae kind' and figur', de 28 Letters.
 besid's de 8 Aspirats, used in de Ænglif tung.

bre, kre cre, dre,				ef, gre jre, he,				je, ca, el, em,					
A	B	C	D	E	HE	F	G	H	I	J	K	L	M
a	b	c	d	e	æ	f	g	h	i	j	k	l	m
A	B	C	D	E	HE	F	G	H	I	J	K	L	M
a	b	c	d	e	ee	f	g	h	i	j	k	l	m
Æ	B	C	D	E	HE	F	G	H	I	J	K	L	M
a	b	c	d	e	æ	f	g	h	i	j	k	l	m
en,		pæ, cu, ar, es,				tæ,		ve, we, ex, yi, ze,					
N	O	OO	P	Q	R	S	T	U	V	W	X	Y	Z
n	o	oo	p	q	r	s	t	u	v	w	x	y	z
N	O	OO	P	Q	R	S	T	U	V	W	X	Y	Z
n	o	oo	p	q	r	s	t	u	v	w	x	y	z
Æ	B	C	D	E	HE	F	G	H	I	J	K	L	M
a	b	c	d	e	æ	f	g	h	i	j	k	l	m
de, the,		che,		khe, geh,		fe, efh,		whe.					
Ð	ƿ	ē	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ	ƿ
d	t	e	k	g	p	f	w						

Fig. 3.3 – Charles Butler's Alphabet

In Butler's *English Grammar* we find 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 called *points*, which may be of two kinds: *Primary* or *Secondary*. A synthesis of them is given in fig. 3.4.

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

Fig. 3.4 – Butler's Punctuation Marks

3.2.1.2. 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»²⁸. 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.

²⁸ *Ibid.*, p. 58.

3.2.1.2.1. 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 roosed again from the dead: he ascended into heaven; and sitted on the right hand of God, the Father Almighty [...]. I believe in the Holy God; the Holy Catholic Church; the communion of Saints; the forgiveness 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. Let us consider every single 'point'.

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»²⁹. 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...*

²⁹ This definition and all the quotations which follow are taken from Chapt. 4, Par. 3 (pp. 58-63).

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 forgiveness of sins; the resurrection of the body; and...*

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.

3.2.1.2.2. 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, we shall now analyse the four mixed points 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 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, exclamations³⁰. From a prosodic

³⁰ 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 underlined the

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; 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 precedes 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.

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*, Proceeding 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*, Cambridge University Press, Cambridge 1918, pp. 275-326 (esp. parr. 1058 and 1063); K.L. Pike, *Op. Cit.*, pp. 163-168. A recent theoretical approach 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.

THE
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OR

The Institution of Letters, Syl-
lables, and Woords in the En-
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Wher^s unto is annexed

An Index of woords Lik^e and Unlik^e.

By

CHARLS BUTLER, Magd. *Master of Arts.*

Arist. Polic. lib 8, cap. 3.

Grammatica addiscenda pueris, utpotè ad vitam utilis.



OXFORD,

Printed by *William Turner*, for the Author: 1634.

Fig. 3.5 - Butler's *English Grammar* frontcover

3.3. 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'³¹. 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 Steele³²: 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)³³, a markedly pedagogical treatise aimed at giving a 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

³¹ 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 *Atti del XIX Congresso dell'Associazione Italiana di Anglistica* (Milan, september 2000), c.d.s. By 'delivery' we mean the fifth canon of traditional rhetoric (the other four are: *Invention, Arrangement, Style and Memory*).

³² J. Steele, *An Essay Towards Establishing the Melody and Measure of Speech, to be Expressed and Perpetuated by Peculiar Symbols* (1775), The Scolar Press Limited, 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.

³³ J. Walker, *The Melody of Speaking Delineated*, cit.