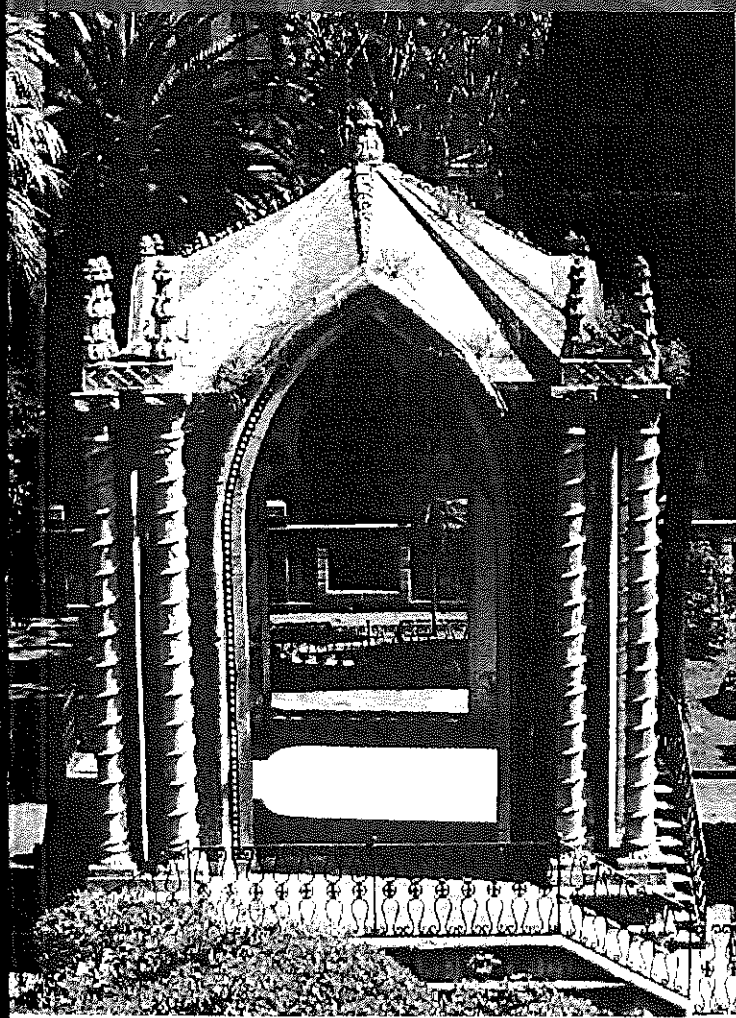


Rites of Passage:

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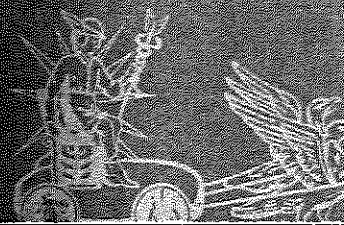


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Catania-Ragusa
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*a cura di
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Annalisa Zanola Macola

The description of English intonation.
Rationalization vs irrationality or, objectivity vs subjectivity

1. *Introduction*

Intonation has a form which has been objectively described for centuries, but it covers also a series of functions which may be subjectively adopted. The dichotomy rational/irrational is therefore particularly relevant here, in order to give a satisfactory definition of this prosodic feature. Even the word 'intonation' contains in itself a fundamental dichotomy: we are referring to the double semantic value of the word, which is commonly used for both the linguistic and the musical domain. If we could consider intonation as a synonym of 'musical melody' (as it wrongly was done for centuries before the twentieth century), we could have absolute pitch and fixed intervals in all the oral performances; on the contrary, 'intonation' and 'intoning' are two completely different entities (Zanola Macola 2000: 24). The movements in linguistic pitch are absolutely relative.

A person speaking with a high-pitched voice may end a fall at a point far higher than the point at which a fall began as uttered by a low-pitched voice: yet, despite total dissimilarity in fundamental frequency or acoustic quality, both falls would be instantly recognized as linguistically identical. Again, even where they begin at the same point in pitch, two speakers will differ very considerably in the amount of pitch movement that may constitute a rise, yet both rises may be received by hearers as in some sense identical, so far as a purely linguistic interpretation is concerned. Crystal insists on this important aspect of intonational studies at the entry *suprasegmentals* in *The Cambridge Encyclopedia of Language* (1987: 173): «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». 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 (Zanola Macola 2000: 66-72, 118-129). 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.

2. *Intonational components*

Intonation is a central part of each communicative oral performance, sometimes indicating grammatical, semantic, or functional distinctions. However, there is disagreement concerning the elements which make up intonation.

As a matter of fact, each intonational realization should be studied in its three main components, that is:

1. *pitch*, the essence of intonation. When a syllable is accented by means of pitch, the pitch does two things at once. First, it signals an accent on that syllable. Second, its direction (up, down, or level) contributes to the melody. The particular pitch movement, which makes no difference to the location of the accent, does make difference to the melody, or 'intonation' in the broader sense;

2. *linguistic use*. We exclude other uses of pitch (such as singing) and any aesthetic evaluations about how 'nice' or 'pleasant' an accent's intonation is;

3. *utterances* (by utterance we mean the continuous piece of speech beginning and ending with a clear pause) expressed in their oral form, whose pitch variation contributes to the meaning of a text.

3. *The definition of intonation*

It is evident that we can't speak of English intonation without 'rationalizing' the concept of intonation. So, the first step in our work will be that of giving a definition of 'intonation'. We have collected a list of definitions of the word (together with its etymology). The definitions have been divided into three parts:

1. Definitions from past works on English intonation;
2. Definitions from current monolingual English and American dictionaries;
3. The most recent trends in the field of intonational studies.

3.1 Definitions from past works on English Intonation

The most common definitions given from the earliest discussions on the subject to the works of early twentieth century on elocution are listed here. The historical value of these definitions is relevant in order to understand the most recent development of the concept.

Furetière 1690: 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 phrase.

Steele 1775: [The melody of speech] is not like the proclamation of a parish-clerk announcing the psalm, [...]. Neither is it like the *intonation of the chorostates*, or precentor in our cathedral [...].

Rush 1827: 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'.

Behnke 1882: 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 picture.

3.2 Definitions from current monolingual English and American dictionaries

The definitions are limited to the two most representative ones; they are taken from the most authoritative monolingual English and American dictionaries (a complete range of definitions has been discussed in Zanola 2000: 21-25).

OED 2000 (ONLINE EDITION):

1. 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.
2. The action of intoning, or reciting in a singing voice: esp. the musical recitation of psalms, prayers, etc. in a liturgy, usually in monotone.
3. 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.
4. Manner of utterance of the tones of the voice in speaking; modulation of the voice; accent.

Merriam-Webster Dictionary 2000 (ONLINE EDITION): *Intonation.* Date: 1620. 1. The act of intoning and especially of chanting; 2. Something that is intoned, *specifically*: the opening tones of a Gregorian chant; 3. The ability to

play or sing notes in tune; 4. Manner of utterance; *specifically*: the rise and fall in pitch of the voice in speech.

3.3 The most recent trends in the field of intonational studies

Some definitions and schemes (figg. 1-4) of the main trends of intonational studies are also given, both from the British and the American schools (for further references, see: Bradford 1988; Crystal 1969; Tench 1996; Cruttenden 1997²).

Deakin 1981: 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'.

Quirk et al. 1985: We speak of INTONATION when we associate relative prominence with pitch, the aspect of sound which we perceive in terms of 'high' or 'low', 'falling' or 'rising', broadly as these terms are used with reference to a scale of musical notes. [...] We speak of STRESS when we are considering the prominence, usually perceived as greater loudness by the listener, with which one part of a word or longer utterance is distinguished from other parts. [...] We speak of RHYTHM when we are considering the pattern formed by the stresses as peaks of prominence or beats. These occur at somewhat regular intervals of time, the recurring beats being regarded as completing a cycle or 'measure'.

Wales 1989: In Phonetics *Intonation* describes the distinctive prosodic patterns or contours of rise and fall in pitch or tone in speech utterances. We rarely speak on one level continuously; that would be monotonous.

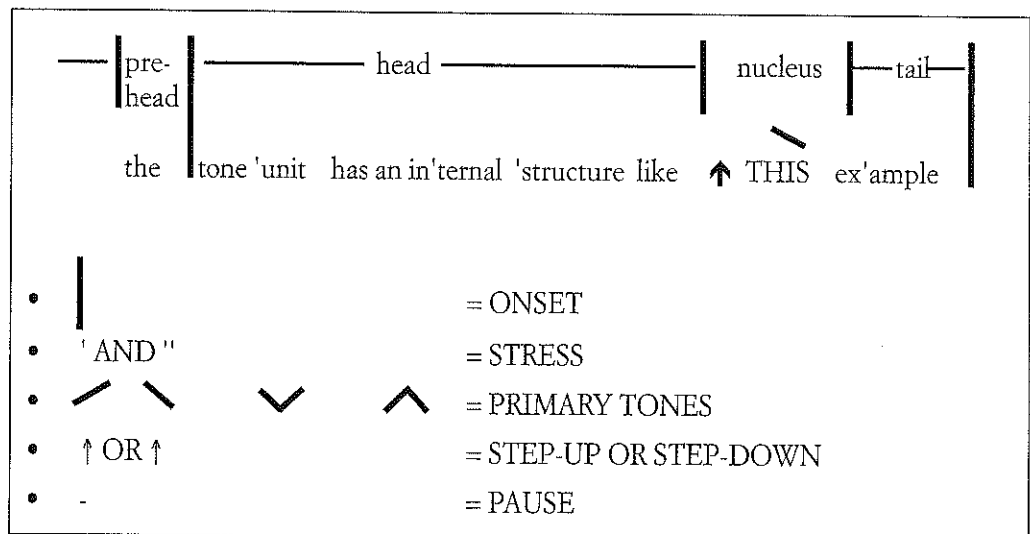


Fig. 1 - Crystal's Intonational System (adapted from: Crystal 1969)

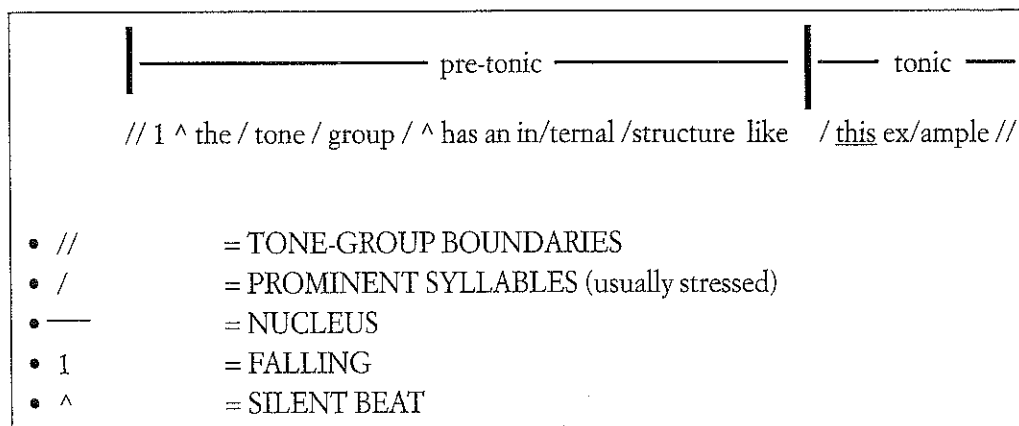


Fig. 2 - Halliday's Intonational System (adapted from: Halliday 1970)

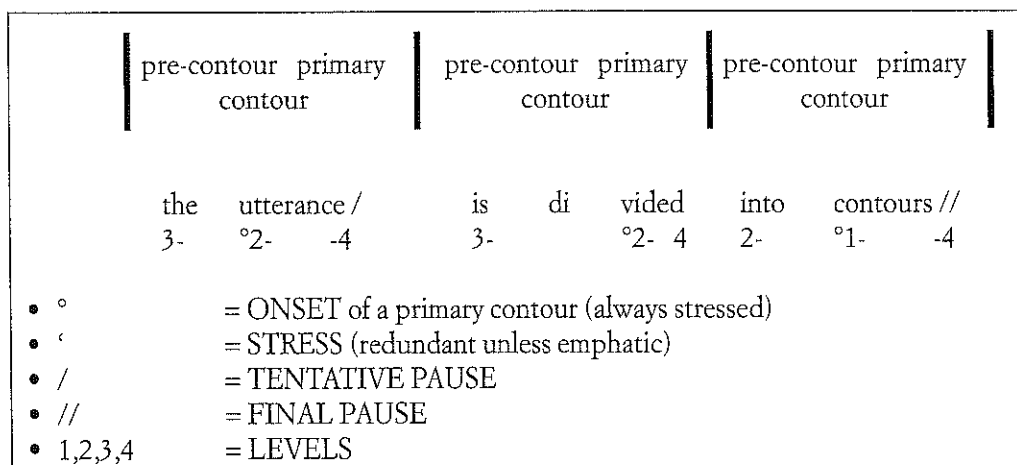


Fig. 3 - Pike's Intonational System (adapted from: Pike 1945)

We will not go through these definitions and descriptions in detail, because they are only the necessary background of our study. Necessary background which has led us to realize that, unfortunately, no definition of 'intonation' is completely satisfactory. Nevertheless, there is a common core in any attempt at a definition: the fundamental role played by the pitch of the voice.

4. The role of intonation

Only in very unusual situations do we speak with fixed, unvarying pitch: when we speak normally the pitch of our voice is constantly changing. One of the most important tasks in analysing intonation is *to listen* to the speaker's pitch and *recognize* what it is doing; this seems to be quite a different skill from that acquired in studying segmental phonetics.

We describe pitch in terms of 'high and low', and some people find it difficult to relate what they can hear in someone's voice to a scale ranging from 'low' to 'high'. We should remember that 'high' and 'low' are only arbitrary choices for end-points of the pitch scale. The literature on English intonation has sometimes adopted the terms *light and heavy*, instead. But people who have difficulty in *hearing* intonation patterns have difficulty at relating what they hear to any 'pseudo-spatial' representation as well.

We start from the apparently obvious consideration that intonation *is the rise and fall of the voice in pitch*. It is important to make the point here that we are not interested in *all* aspects of a speaker's pitch; the only things that should interest us are those which carry some linguistic information. In other words, if we take two speakers at random we will almost certainly find that one speaker typically speaks with lower pitch than the other but the difference between the two speakers is not linguistically significant because their habitual pitch level is determined by their physical structure; *but*, individual speakers *do have* control over their own pitch, and may choose to speak with a higher than normal pitch, and this is something which *is* potentially of linguistic relevance.

Pitch differences are linguistically significant *if* they are under the speaker's control. Not only that. A pitch difference must be *perceptible*. And last but not least, it should be remembered that in looking for linguistically significant aspects of speech we must always be looking for *oppositions*, or *contrasts*: in fact, one of the most important things about any unit of phonology is the set of items it contrasts with (ex.: we know how to establish what phonemes are in contrast with 'b' in the context -in; we can substitute other phonemes – such as 'p' or 's' – to change the identity of the word from 'bin' to 'pin' or 'sin'). But the problem here is: can we establish such units and oppositions in intonation? In other words: what happens when pitch variations take place in an English utterance (by utterance we mean the continuous piece of speech beginning and ending with a clear pause)? And what is the linguistic importance of these variations? In other words, it is the role of intonation in language which becomes a subject of considerable controversy.

5. *Beyond the definition: intonational functions*

Some features of the prosodic component we are analyzing interact with syntax, some with sociolinguistic categories, some with affective meaning, and so on; but there is no claim that one interrelationship is in some sense prior to the others. Intonation serves a variety of functions simultaneously: it should *not* be regarded as being primarily confined to the specification of

speaker's attitude, grammatical structure, semantic distinction or any other single function. Together with Deakin (1981), we have distinguished at least nine main intonational functions in English, which either work in isolation or are linked one to another. They are:

- (i) specification of phrase (or group) and clause structure;
- (ii) specification of subordination and coordination of clauses;
- (iii) marking important points in discourse ('paragraph' or discourse structure);
- (iv) coding the information structure of the clause (i.e. given and new information);
- (v) marking special emphasis;
- (vi) indicating certain types of discourse or 'speech genres';
- (vii) indicating different types of 'speech acts';
- (viii) indicating the emotional attitude of the speaker;
- (ix) marking the social role or some other socially significant characteristics (such as age, sex, class or occupation) of the speaker addressee (79).

None of these functions is prior to the others. They all contribute to recognise the double nature of intonation: its emotional nature and its logical nature. An example: intonation is indispensable to grammar, but the grammatical functions of intonation are often secondary to the emotional ones; in fact, speakers 'feel' differently about what they say, and the feelings manifest themselves in pitch changes that serve as clues. This could be a proof of the emotional rather than logical nature of intonation; speakers rarely if ever objectify the choice of an intonation pattern; they do not stop and ask themselves «Which form would be best here for my purpose?» as they frequently do in selecting a word or a grammatical construction. Instead, they identify the feeling they wish to convey, and the intonation is triggered by it. They may make mistakes and have to correct themselves but the correction will be just as unreflecting as the original choice.

6. Subjectivity vs Objectivity

The description of English intonation as a system has always tried to demonstrate that intonation is as systematic as other parts of the phonology (Crystal 1969; Tench 1996; Cruttenden 1997), and since it is systematic, it can be presented in terms of differences of meaning, which in turn implies that intonation can be taught and learned. This would imply that there is therefore no need to think of intonation as a nebulous phenomenon that can only be

appreciated in subjective, emotional terms, as a prosodic feature that is so personal to defy careful analysis, even if there *is* a strong personal, subjective, emotional element to it. And, as a matter of fact, if intonation were not conventional, we would never know what meanings it conveys; in order to interpret the meaning of a particular intonation, we have to assume that the intonation pattern that a person uses means the same thing when somebody else uses it. To take a simple example, how would we know that an intonation pattern is a menacing one if we didn't have an 'agreement' (or convention) that that is what that particular pattern means? It is because intonation is conventional and we know what different patterns mean that we can make the comment about not liking the 'way' something was said (Tench 1996). Thanks to the conventionality of intonation, we can analyse it reasonably objectively and describe it reasonably succinctly.

However, it is the subjective, or irrational side of intonation which makes the entire intonational phenomenon so difficult to describe. Intonation has been described for centuries as the expression of *the language of passions (or emotions)*, the 'true sign of passion' (Sheridan 1762: 101). Thomas Sheridan (1719-1788) described the English tones, in particular, as «expressive of sorrow, lamentation, mirth, joy, hatred, anger, love, pity, &c.»; according to him, they were the same «in all nations, and consequently can excite emotions in us analogous to those passions, when accompanying words which we do not understand» (102). The power of tones could be so strong that «the very tones themselves, independent of words, will produce the same effects, as has been amply proved by the power of musical imitation. And tho' these tones are usually accompanied with words [...], yet the whole energy, or power of exciting analogous emotions in others, lies in the tones themselves» (108).

According to Sheridan and many scholars after him (Walker 1787; Steele 1779; Odell 1806; Rush 1827), tones may express feelings and emotion, whereas words express contents and ideas. Tones are even more important than words, because «words are limited to their peculiar office, and never can supply the place of tones; yet tones, on the other hand, are not confined to their province, but often supply the place of words, as marks of ideas» (109).

More recently, some scholars have reinterpreted intonation as the *musical sign of emotions* (Fónagy, Magdics 1963). According to them, similar emotions or attitudes are bound to analogous melodies in languages not interrelated: «The musical signs of emotions may be considered as panchronic tendencies standing above languages and ages, which are realized according to the prevailing structure of the different languages» (302).

The dichotomy rational/irrational, objective/subjective has always been one of the distinctive marks of English intonational studies. Daniel Jones, who dignified intonation by defining it as a «branch of the phonetic science» (Jones 1909), in *An Outline of English Phonetics* (1918) insisted on the fact

that «to get good results in practical teaching it is necessary to have continual regard to the intonation *aimed at*, i.e. the intonations which are *subjectively* present to the speaker. These often differ considerably from the objective intonations actually employed» (1918: 326). By 'objective intonation' the Author meant the pure physical qualities of this prosodic feature, whereas by 'subjective intonation' he intended the speaker's performance at the intonational level.

7. Conclusion

Work on intonation in the last decades has been concentrated on mapping the tones, taking account of different approaches:

a) *the syntactic approach*: the assignment of intonation-groupings and nucleus placement can be based on syntactic grounds, with readjustments rules from the discourse analysis;

b) *the semantic approach*: the semantics may be involved in a set of abstract meanings to be matched to the set of tones in an intonational lexicon;

c) *the pragmatic approach*: the pragmatics is involved in the choice of a tone and in the interaction between the abstract meanings of the tones and other levels of meaning (lexical, grammatical, gestural);

d) *the comparative approach* of the preceding areas to refine any kind of intonational typology.

The different approaches refer to a dual formal representation of any intonational performance: the representation by *contours*, supported by the British School, and the representation by *levels*, introduced by the American school. The most recent analyses from the two schools of thought have produced interesting works especially into two areas:

1) that which arises directly from the needs of speech recognition and synthesis;

2) that in the framework first put forward by Pierrehumbert (1980) and codified in the ToBI guidelines of Beckman and Ayers (1994).

The great tradition of grammar and phonology which lays behind the different approaches has been always an aid and a handicap at the same time: an aid because it has demanded rigor and consistency, a handicap in that it has tempted one to see outlines that could be even too sharp. In phonology we take our divisions, largely, where we find them: when we have to distinguish *tip/dip*, *ban/pan/van*, a high level of agreement on the distinction is attainable. Nothing so ready to hand is found in intonation. we can try our best to

impose a structure, but the way is easily lost. Fortunately a certain consensus exists – as we have seen – that one can look at such simple values as *high/low*, *up/down*, and that melodic shapes (contours, or levels) may be grouped around certain forms associated with the prominent syllable of an utterance.

From our point of view, intonation seems to have more in common with *gesture* than with grammar, though both intonation and gesture are tremendously important *to* grammar, as their lines intersect. But let this be a little food for thought.

References

- BECKMAN M.E., G.M. AYERS, 1986, *Guidelines for ToBI Labelling. Version 2.0.*, Ohio State University - Department of Linguistics, Columbus.
- BEHNKE K., 1882, *The Mechanism of the Human Voice*, Curwen, London.
- BOLINGER D., 1986, *Intonation and its Parts*, Stanford Univ. Press, Stanford.
- BOLINGER D., 1989, *Intonation and its Uses*, Stanford Univ. Press, Stanford.
- BRADFORD B., 1988, *Intonation in Context*, Cambridge University Press, Cambridge.
- CRYSTAL D., 1969, *Prosodic Systems and Intonation in English*, C.U.P., Cambridge.
- CRUTTENDEN A., 1997 (2nd ed.), *Intonation*, Cambridge University Press, Cambridge.
- DEAKIN G., 1981, *Indirect Speech Acts and Intonation*, The Australian National University, Canberra.
- FÓNAGY I., K. MAGDICS, 1963, *Emotional Patterns in Intonation and Music*, in Bolinger D. (ed.), *Intonation. Selected Readings*, Penguin, Harmondsworth, pp. 286-312.
- FURETIÈRE A., 1979 (1690), *Dictionnaire Universel, Contenant tous les Mots François tant vieux que modernes, et les Termes de toutes les Sciences et les Arts*, Slatkine, Geneva.
- GUIMBRETIÈRE E. (ed.), 2000, *La Prosodie au coeur du débat*, Publications de l'Université de Rouen, Rouen.
- HALLIDAY M.A.K., 1970, *A Course of Spoken English: Intonation*, Oxford University Press, London.
- JONES D., 1909, *Intonation Curves*, Teubner, Leipzig.
- JONES D., 1918, *An Outline of English Phonetics*, C.U.P., Cambridge.
- PIERREHUMBERT J., 1980/87, *The Phonology and Phonetics of English Intonation*, PhD Thesis, MIT, published by Indiana Univ. Linguistic Club.
- PIKE K.L., 1945, *The Intonation of American English*, The University of Michigan Press, Ann Arbor.
- RUSH J., 1827, *The Philosophy of the Human Voice*, Grigg and Elliott, Philadelphia.
- SHERIDAN TH., 1970 (1762), *A Course of Lectures on Elocution*, G.O. Verlag, New York.
- STEELE J., 1969 (1775), *An Essay towards Establishing the Melody and Measure of Speech*, The Scolar Press, Menston.
- WALES K., 1989, *A Dictionary of Stylistics*, Longman, London-New York.
- TENCH P., 1996, *The Intonation Systems of English*, Cassell, London.
- ZANOLA MACOLA A., 2000, *English/American Intonation and its Historical Foundations*, Pubblicazioni dell'ISU- Università Cattolica, Milan.
- ZANOLA MACOLA A. (forthcoming), *Rhetoric and the Body: A Lesson from the Ancient Elocutionists*, in Antczak F. (ed.), *RSA 2000 Conference Proceedings: Professing Rhetoric*, Lawrence Erlbaum Ass., Mahwah (New Jersey).

Web Sites

<http://dictionary.oed.com> (OED Online, Oxford University Press 2000).

<http://www.m-v.com> (Webster Dictionary, Merriam-Webster Inc. 2000).