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When published in 1986, this book was the first to survey intonation in all its aspects, both in English and universally. In this updated edition, while the basic descriptive facts of the form and use of intonation are presented in the British nuclear tone tradition, there is nevertheless extensive comparison with other theoretical frameworks, in particular with the ToBI framework, which has become widespread in the United States.

In this new edition Alan Cruttenden expands the sections on historical background, different theoretical approaches and sociolinguistic variation. After introductory chapters on the physiology and acoustics of pitch, he describes in detail the forms and functions of intonation in English and discusses the sociolinguistic and dialectal variations in intonation. The concluding chapter provides an overview of the state of the art in intonational studies.

*Intonation* remains the basic reference book on the subject for linguists, phoneticians, speech therapists and all those concerned with speech in any way.

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# INTONATION

ALAN CRUTTENDEN

PROFESSOR OF PHONETICS  
UNIVERSITY OF MANCHESTER

SECOND EDITION



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Manchester, 1985

In preparing the second edition I again thank all those who have read and commented on parts of this book. Particular mention must be made of Louise Coward, Esther Grabe, and Hector Ortiz-Lira.

Manchester, 1996

## PREFACE

This was the first textbook on intonation for linguists and the first textbook which attempted to widen the discussion of intonation to include languages other than English. There have been a number of excellent textbooks which have been pedagogically oriented to the needs of speakers of English as a second or foreign language (see in particular Palmer, 1922; Armstrong and Ward, 1926; Kingdon, 1958a; O'Connor and Arnold, 1961 and 1973; Halliday, 1970; and Pike, 1945, as the sole American book of this sort). Such textbooks have all included at least some (and often a large amount of) practice material. The present book is not intended as a practice book; those whose ears and mouths need to practise the skill of recognising and producing intonation patterns should use one of the above books, preferably one which uses the same tonetic-stress marks as the present book (e.g. O'Connor and Arnold, 1973). Among previous books on intonation the nearest approaches to the present volume are Bolinger (1972b), Crystal (1969a), Ladd (1980), and Couper-Kuhlen (1986). Bolinger (1972b) is a book of readings with the selective coverage which that entails; Crystal (1969a) is the most thorough bibliographic survey in print, but covers essentially only English; Ladd (1980) gets to grips with many of the difficult theoretical problems in intonational analysis, but is nevertheless selective and also limited to English; while Couper-Kuhlen (1986) thoroughly surveys a wide range of work on intonation, but is yet again limited to English. At the time when the second edition of this book is going to press, two further books have been written which will add significantly to the intonational stock: Ladd (1996) represents a major discussion of the theoretical issues, particularly within the framework now codified in ToBI (see section 3.9.2 of this book), and Hirst and di Cristo (forthcoming), will be the first volume to present a point-by-point comparison of many languages.


The present book differs from any predecessor in attempting to give thorough descriptive and theoretical coverage and to extend the database to languages other than English. In this attempt to achieve wider coverage, it is inevitable

*Preface*

that there are many areas which are near-virgin territory and where what is written is almost entirely my own point of view based on my own long interaction with theory and analysis in intonation; where this applies I have clearly said so in the text. For many linguists the content of this book will represent a curious mixture of the analytic, the descriptive, the typological, and the theoretical. Linguists tend to belong to one of these categories and to regard those belonging to one of the other categories as at the very least doing a different sort of linguistics. But if this book is to be used as a textbook it seems to me important that students should be introduced to (i) the sort of difficulties involved in setting up the formal units within which an intonational description is to be made (see in particular 3.2, 3.4, and 3.6); (ii) a certain amount of descriptive detail about the actual forms and meanings of tunes (see in particular chapter 4, sub-section 4.4.1); (iii) a discussion of the theoretical issues which have been and/or still are in the forefront of prosodic argumentation (see in particular chapter 2, section 2.5; chapter 3, section 3.9; chapter 4, sub-sections 4.4.2–4.4.4; and chapter 5, sub-section 5.4.3); and (iv) some sort of cross-dialectal and cross-language survey to show dimensions of variation and putative universals (see in particular chapter 5). It follows therefore that, according to the persuasion and interests of any particular reader, sub-sections of the book can be skipped without necessarily impairing understanding of later sections.

I have written the book in such a way as to keep references in the text to the absolute minimum. At the end of each chapter there is then a very full listing of any sources I have used, together with guidance on further reading. The examples in 4.1–4.4.2 have been read aloud by me on an accompanying cassette.

## TRANSCRIPTIONS

Systems of intonational transcription fall into two categories, roughly analogous to the broad and narrow transcriptions of segmental phonology. A narrow transcription uses some sort of continuously varying line or series of dots (either through or alongside the basic text) to represent the continuously varying pitch of the speaker. The type of narrow transcription preferred in this book is often referred to as ‘interlinear tonetic’ and looks like this . In this type of transcription the top and bottom lines represent the top and bottom of the speaker’s pitch range and each dot corresponds to a syllable, the larger dots indicating stressed and/or accented syllables (for a discussion of the terms stress and accent, see the beginning of chapter 2).

A broad transcription of intonation represents some level of phonological analysis of the pitch patterns used by a speaker. The system most common in the U.S. is based in a tradition which sees intonational patterns as analysable into a series of level tones. In early analyses of this sort (see in particular Pike, 1945; and Trager and Smith, 1951) four levels were used. But over the last two decades (initiated by Pierrehumbert, 1980; and now codified as ToBI – see section 3.9.2 below) an analysis based on only two pitch levels (H and L) has become most commonly used. In Britain an analysis based on contour tones continues to be widely taught and is preferred in this book, not least because of its highly-convenient and iconic transcription system involving ‘tonetic-stress’ marks. This type of transcription has a long history of British usage with roots going back to Walker (1787), Sweet (1878 and 1892), and Palmer (1922); and it has been used in a number of well-known pedagogical textbooks of British English intonation (see in particular Kingdon (1958a), Schubiger (1958), and O’Connor and Arnold (1961, 1973)). In a full system of tonetic-stress marking, a mark is placed before each stressed syllable and the differences between the marks indicate the type of pitch movement beginning on that syllable.

### *Transcriptions*

In this book only a limited number of marks are used, as follows:

- / for an intonation-group boundary,
- \ for a fall from high to low (a 'high-fall')
- ˋ for a fall from mid to low (a 'low-fall')
- / for a rise ending high (a 'high-rise')
- / for a rise ending mid (a 'low-rise')
- ∨ for a fall-rise
- ^ for a rise-fall
- > for a mid-level
- > for a high-level
- = for a stylised fall
- ˈ for a high pre-nuclear accent

All these marks (with the exception of the last) indicate the pitch pattern involved in a following 'nuclear tone' (see chapter 3, section 3.6). The last mark indicates a high pitch accent in a pre-nuclear position. These tonetic-stress marks are explained again as they arise up to chapter 3, section 3.7, in which section they are given a full explanation; thereafter they are not usually explained.

It is sometimes necessary to refer to stress with no indication of pitch: this is done by placing the mark over the vowel (whereas all the tonetic-stress marks precede syllables), e.g. *áccent* and *táalking about áccent*. It is also sometimes useful to refer to the nucleus or nuclear syllable (or 'primary stress') of an utterance without indicating pitch movement: this is done by using small capitals for the nuclear syllable, e.g. *talking about áccent*. Syllable division is occasionally indicated by a hyphen, e.g. /eks-trə/.

The context of particular intonational examples is indicated as follows:

- Preceding utterance spoken by same speaker: no overt indication but intonation not usually marked
- Preceding utterance spoken by different speaker: (                    )
- Situational context: [                    ]
- Pauses are indicated by three dots: . . .
- Omitted portions of utterances are indicated by five dots: . . . . .