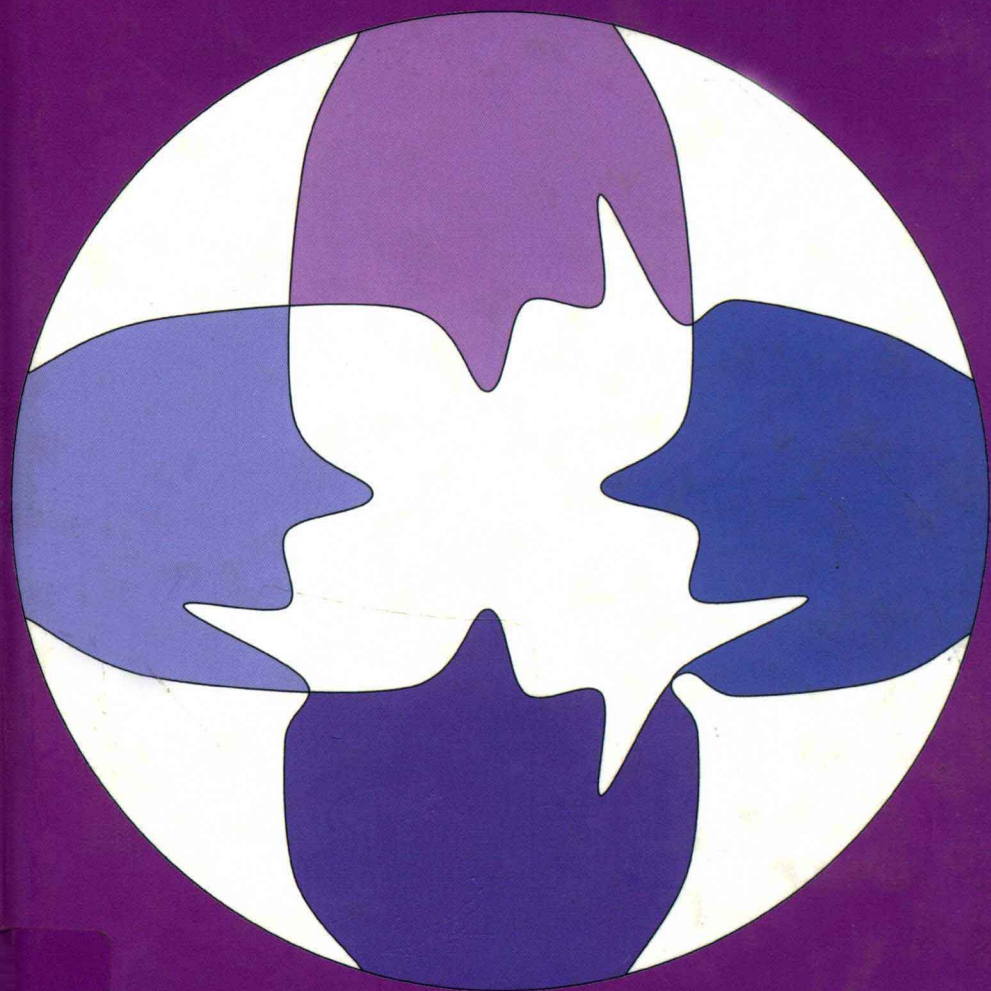
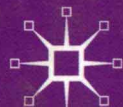


PROSODIC ORIENTATION IN ENGLISH CONVERSATION

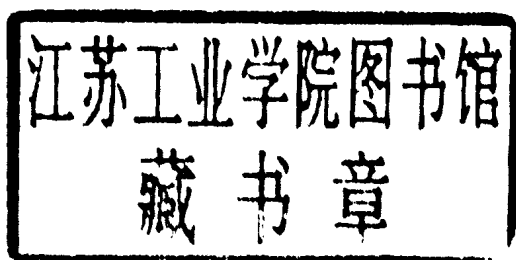


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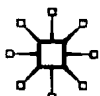


Prosodic Orientation in English Conversation

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BEATRICE SZCZEPEK REED

Preface

This book addresses students, researchers and teachers of spoken language. It presents an empirical study of natural language data in which a basic behavioural pattern of human interaction is revealed and investigated: the display of awareness of another person's voice or vocal behaviour through the use of one's own voice. This phenomenon is referred to as 'prosodic orientation'.

An investigation of this phenomenon is of primary interest to phoneticians and phonologists, in particular to those for whom spontaneous voice production and vocal aspects of discourse are relevant. The high degree to which dialogue partners monitor and adapt to each other's vocal delivery clearly informs the study of phonological patterning, and its contribution to meaning in discourse. This book also contributes to fields in linguistics, psychology and sociology which specialize in the investigation of spontaneous human communication. While previous research has shown that humans interact through a variety of communicative modes, including verbal, gestural, proxemic and kinesic, this study shows that prosody is another independent mode through which speakers negotiate interactive meaning.

The communicative aspect makes this book also relevant to the areas of language use, pragmatics and applied linguistics. Research in TESOL, first and second language acquisition, native/non-native speaker interaction and intercultural communication may profit from the finding that speakers constantly adapt their speech to that of their interlocutor(s). It can be assumed that prosodic learning is predominantly and continuously informed by prosodic orientation.

Evidence of the ability to display orientation to another speaker's vocal production with split-second precision is of relevance to anyone interested in the cognitive aspect of human interaction and perception, including neurolinguists, psycholinguists and psychologists. Finally, as accommodation and mimicry are cross-cultural aspects of human behaviour, the practice described in this book may be of interest to students of linguistic anthropology as a potential prosodic universal.

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GAT¹ Transcription Conventions

Basic conventions

Sequential structure

| | |
|----|--|
| [] | overlap |
| [] | |
| = | quick, immediate connection of new turns or single units |

Pauses

| | |
|----------------------|--|
| (.) | micro-pause |
| (-), (--), (---) | short, middle or long pauses of up to 1 second |
| (2.0) | estimated pause of more than 1 second |
| (2.85) | measured pause |

Other segmental conventions

| | |
|--------------|------------------------------------|
| and=uh | slurring within units |
| ;;, ::, ::: | lengthening, according to duration |
| uh, ah, etc. | hesitation signals |

Laughter

| | |
|--------------|----------------------------------|
| so(h)o | laughter particles during speech |
| haha, hehe | syllabic laughter |
| ((laughing)) | description of laughter |

Accents

| | |
|----------|-------------------------|
| ACcent | primary, or main accent |
| !AC!cent | extra strong accent |

Final pitch movements

| | |
|---|-------------|
| ? | high rise |
| , | mid-rise |
| - | level pitch |
| ; | mid-fall |
| . | low fall |

¹ Gesprächsanalytisches Transkriptionssystem: Selting *et al.* (1998).

Pitch step-up/step down

↑ pitch step-up
 ↓ pitch step down

Change of pitch register

<<l>> low pitch register
 <<h>> high pitch register

Change of key

<<narrow key>> use of small segment of speaker's voice range
 <<wide key>> use of large segment of speaker's voice range

Intra-linear notation of pitch movement within an accent

`SO fall
 ^SO rise
 ^SO rise-fall
 ^SO fall-rise

Loudness and tempo changes

<<f>> forte, loud
 <<ff>> fortissimo, very loud
 <<p>> piano, soft
 <<pp>> pianissimo, very soft
 <<all>> allegro, fast
 <<len>> lento, slow
 <<cresc>> crescendo, becoming louder
 <<dim>> diminuendo, becoming softer
 <<acc>> accelerando, becoming faster
 <<rall>> rallentando, becoming slower

Breathing

.h, .hh, .hhh breathing in, according to duration
 h, hh, hhh breathing out, according to duration

Other conventions

() unintelligible passage
 (such) presumed wording
 (such/which) possible alternatives
 -> specific line in transcript which is referred to in the text

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1

Prosody in Conversation

Introduction

This book investigates how participants in everyday conversations collaborate in the prosodic domain of talk by making previous speakers' vocal patterns interactionally relevant in their own vocal delivery. The study contributes to ongoing research on the interrelation between prosody and spontaneous spoken interaction. It also contributes to research on natural conversation as such, as the prosodic practices described here are treated as part of the broad repertoire of social actions employed by participants in naturally occurring conversations. All data used for this study are recordings of everyday talk, either face-to-face or on the telephone. All analytical interpretations are made on the basis of the observed behaviour of the conversational participants themselves, rather than on the basis of linguistic intuition and/or introspection.

In spontaneous conversation, prosody has been found to have a variety of interactional functions, a principal one being its contribution to turn-taking. The prosodic delivery of the final part of a turn-at-talk is one of the signals which communicate to other conversationalists whether a current speaker has finished speaking, and whether a next participant may begin (Local *et al.* 1985; Local *et al.* 1986; Wells and Peppé 1996). Thus the turn-taking system is one conversational environment in which interactants show awareness not only of verbal content and syntactic constructions, but also of the way in which a previous utterance is phonetically delivered. Turn-taking heavily depends upon prosodic cues being produced and interpreted by participants in a given conversational context.

However, in the process of conversation participants not only display awareness of others' prosodic delivery as making a next action relevant.

Speakers also handle prosody itself as an independent domain for interactional collaboration by displaying in their own prosodic delivery that a preceding prosodic pattern is being responded to. This phenomenon is what is being investigated here under the term 'prosodic orientation'.

The term 'orientation' is used by conversation analysts to mean that 'throughout the course of a conversation ... speakers display in their sequentially "next" turns an understanding of what the "prior" turn was about' (Hutchby and Wooffitt 1998: 15). While prosodic orientation is not argued to be a display of 'understanding' of a prior turn, the following chapters show that one participant's prosodic design may display his/her awareness of a previous speaker's prosody. Thus, it is in the sense of 'displaying awareness' that the term 'orientation' is used here.

The prosodic display of awareness of another speaker's vocal delivery occurs most frequently in the form of repetition: a previous speaker's prosodic pattern, such as an intonation contour, is copied by a second speaker without necessary repetition of lexical choice, semantic content or syntactic structure. Awareness of other participants' prosody is also apparent in cases of a noticeable prosodic opposite in a second speaker's turn, such as a quiet reply to a shouted first utterance. Furthermore, prosodic orientation occurs when a second speaker continues a previous participant's unfinished intonation contour. This form of prosodic orientation frequently appears in combination with the syntactic domain, as for example in instances in which one speaker completes a syntactic construction which was left incomplete by a previous speaker, and simultaneously continues that speaker's pitch pattern. Certain types of prosodic orientation are frequently observed in instances in which speakers highlight and draw attention to their own prosodic design, often introducing an element of conversational play and aesthetics.

In the following chapters prosodic orientation is introduced as a basic phenomenon of talk-in-interaction, and subsequently two of its conversational varieties are investigated. Chapter 2 describes and investigates prosodic orientation in the form of matching, non-matching and complementing a previous prosodic design. Chapter 3 analyses participants' prosodic orientation in prosodically stylized sequences, which involve musical intervals, extreme prosody and repetition. Chapter 4 explores the collaborative production of turns, in which both an intonation contour and a syntactic construction begun by a first speaker are completed or extended by an incoming second participant.

Previous research on conversational prosody has focused on the prosodic delivery of utterances by single speakers and interactional implications thereof. So far, the collaborative potential of prosody has

been investigated only with respect to rhythm (Couper-Kuhlen 1993; Auer *et al.* 1999), and pitch range employed for quoting and mimicry (Couper-Kuhlen 1996). This book encompasses orientation in all other prosodic parameters. The following chapters attempt to show that prosody is treated by interactants as 'common property', interrelated with other speakers' prosodic designs. The data under analysis are everyday conversations by native speakers of close-to-standard British or US American varieties, which were recorded during face-to-face interactions, telephone conversations and radio broadcasts. Preceding the analysis of the phenomenon, this chapter outlines some basic claims about conversational prosody. The next section provides a brief definition of 'prosody' as the object of study; subsequently, four previous approaches to prosody are presented; the fourth section introduces the approach to the prosody of spoken interaction employed in this book; and the fifth section describes the linguistic units most relevant for the analysis of prosody in conversation. The chapter ends with information about the data corpus and a preview over the remaining chapters.

Prosody defined

In most phonological traditions, prosody is understood to comprise the 'suprasegmental' elements of speech: pitch is realized in the form of intonation and pitch register; loudness is realized in the form of stress on single syllables and loudness over longer stretches of talk; time is realized in the form of duration, tempo, speech rate, rhythm and pause.¹

Pitch is the auditory impression of speech sounds as located on a scale between 'high' and 'low'. It corresponds to the acoustic feature of the frequency of vibration of the vocal folds, it is measured in Hertz values and it is realized as a pitch curve in an acoustic analysis. Pitch range can be defined as the span of Hertz values covered by speakers' vocal output from the lowest to the highest pitch level. It is traditionally assumed that male speakers can roughly cover a pitch range between 60 and 240 Hz, while female speakers tend to range between 180 and 400 Hz. In this book, the term pitch register is used to describe the span of pitch values of a given stretch of talk, and we speak of high or low pitch register if speakers can be heard to raise or lower their 'baseline' (Cruttenden 1997: 123*f*), vocalizing at a higher or lower overall pitch level than during previous talk. The frequency analysis in Figure 1.1 shows a male speaker employing a pitch register between 92 and 185 Hz, and a female speaker using a pitch range from 277 to 400 Hz.²

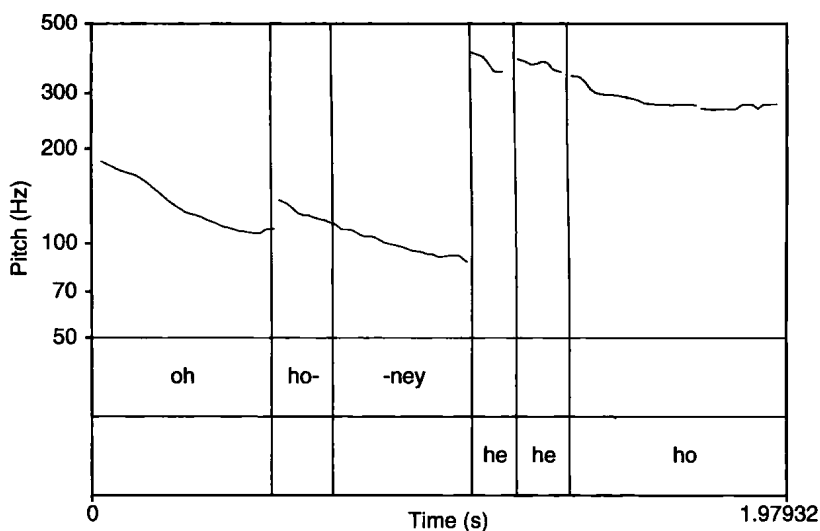


Figure 1.1 Pitch register

In addition to the overall pitch register of a given stretch of speech, we can describe the constant changes in pitch level which accompany all spontaneous talk. Such pitch movement is analysed under the term intonation. While pitch register concerns overall pitch level, intonation is melodic movement of pitch. The frequency analysis in Figure 1.2 shows a male and a female speaker.

The first speaker begins his utterance with a rising movement from 180 Hz to 257 Hz on the syllable *hi*, then steps down after the stop consonant /b/ to produce a slight fall from 127 Hz to 108 Hz on *bar-*, and rises again on his last syllable *-bra* from 128 Hz to 234 Hz. The second speaker begins with a rise from 240 Hz to 344 Hz on her first syllable *hell-*, from which she falls down to 118 Hz on *-o*; her last syllable *tim* steps up to 176 Hz and rises to 382 Hz.

Loudness is the auditory correlate of intensity and is measured in decibels; acoustic analyses are represented as wave forms. We distinguish between loudness over a stretch of talk and loudness on a single syllable. Changes in loudness are perceived along a scale from loud to soft, and the two are often referred to by their musical terms *forte* and *piano*, or, in the case of gradual changes, *crescendo* and *decrescendo*. The wave form in Figure 1.3 shows the same conversational sequence as Figure 1.2.

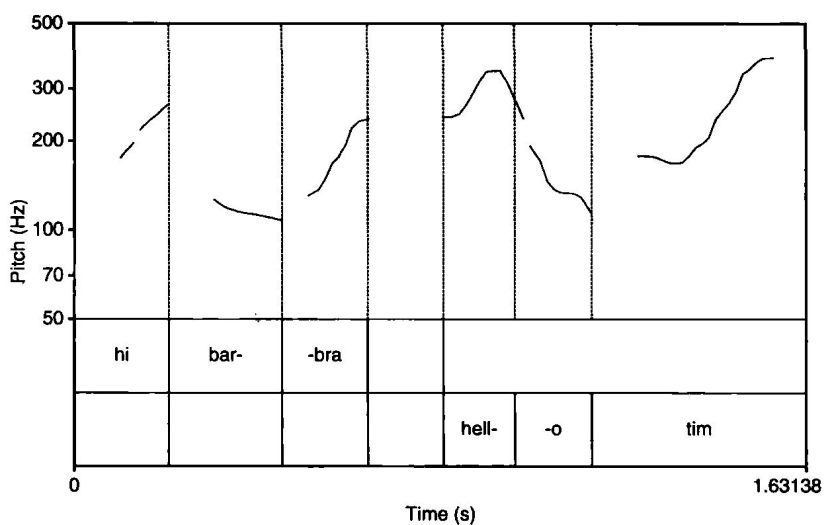


Figure 1.2 Intonation

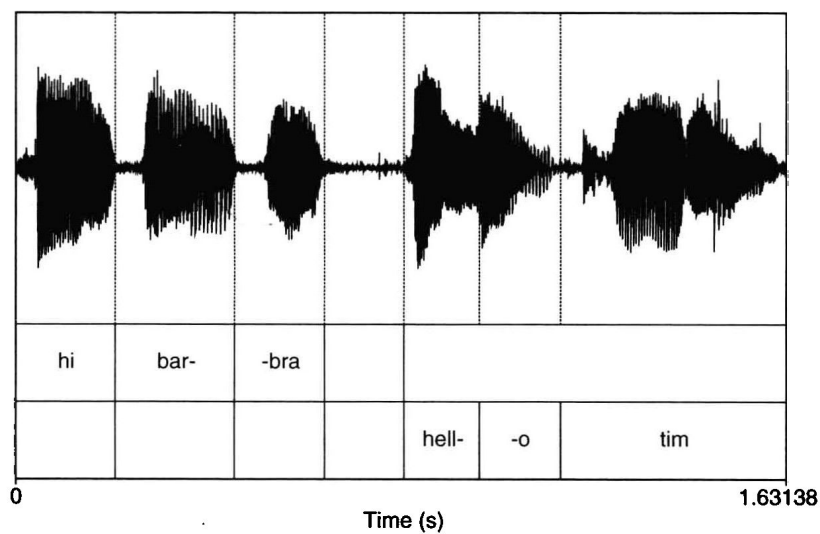


Figure 1.3 Loudness

Loudness on one syllable contributes to the realization and perception of stress. Stress can be defined as syllable prominence through loudness; in English the term is typically used for word or sentence stress, concerning the distribution of prominence on multi-syllabic words, compounds and phrases. Another term which is used to describe syllabic prominence is 'accent', or 'pitch accent'. As the latter term implies, pitch accent refers to prominence which is achieved through an increase in loudness and pitch, often in combination with duration. No vocalization is possible without pitch, and all voiced syllables, accented, stressed, or unstressed, involve some deployment of pitch. However, pitch accent is defined as implicating pitch movement:

Pitch accents depend on some sort of obtrusion of pitch at the point of accent from the pitch of surrounding syllables. Such obtrusions depend on movements to or from the accented syllable, involving (i) a step-up, (ii) a step-down, (iii) a movement down-from, or (iv) a movement up-from. Accents may involve either a movement to or a movement from alone, or a combination of both types of obtrusion. (Cruttenden 1997: 40)

Thus, stress and accent both involve some deployment of loudness on single syllables: stress implies a primary use of loudness, whereas accent is defined as a combination of loudness and pitch movement.

Time bears upon various aspects of sound production across a number of linguistic domains, from the single syllable to the level of utterance. On the syllabic level we can measure duration. Syllables may be lengthened or clipped. In the above example, the first syllable (*hi*) measures 0.22 seconds, the second (*bar-*) 0.25, while the third syllable (*-bra*) is shortened to 0.19 seconds. The second speaker's first syllable is also rather short at 0.15 seconds, her second syllable slightly longer at 0.19 seconds. The last syllable is lengthened to 0.38 seconds.

Concerning the time which speakers require for the production of longer spates of talk, two parameters are in use. The 'speech tempo' of an utterance is determined by the duration of its syllables, such that an utterance containing several long syllables is perceived as slow, while a succession of relatively short syllables is heard as fast. In contrast, another parameter can be applied for measuring speed: the 'speech rate' of an utterance refers to the number of syllables per second. Thus, many syllables per second are perceived as fast, few syllables per second as slow. See for example Figure 1.4.

Figure 1.4 contains 1.42 seconds of speech, during which the speaker produces 10 syllables. Thus, the speech rate of the utterance below is