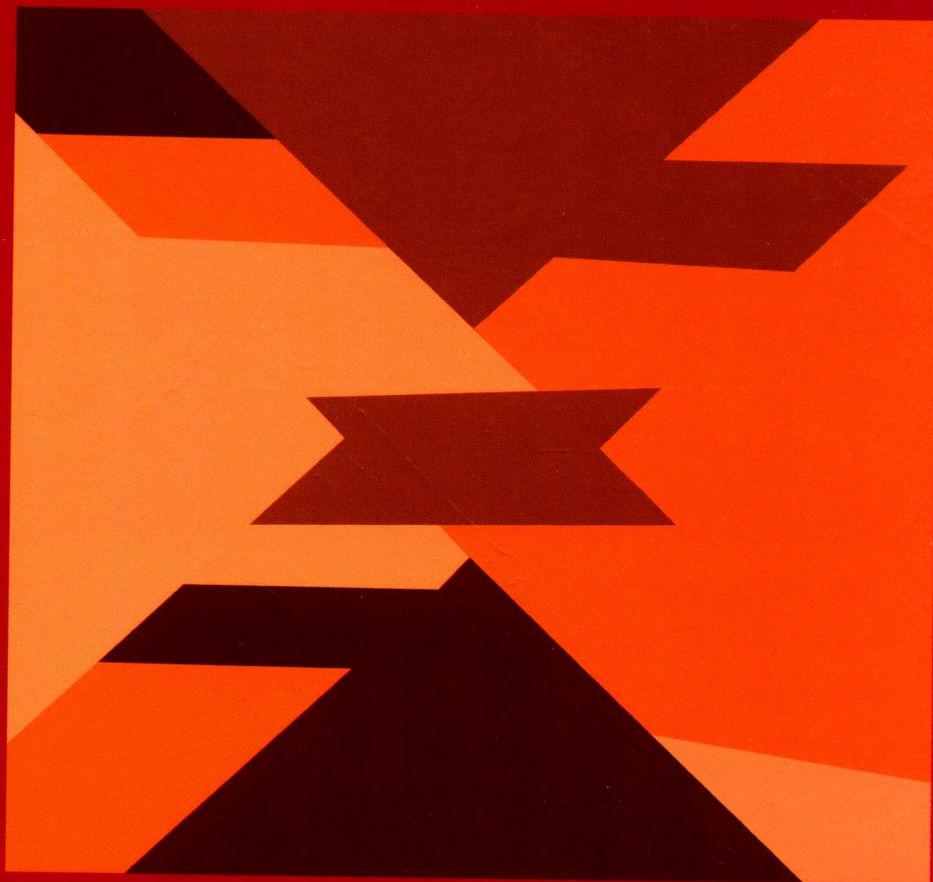


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# Intonational Phrasing in Romance and Germanic

EDITED BY Christoph Gabriel  
Conxita Lleó

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# Foreword

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During the last few decades, the interest in describing and modeling intonation has steadily grown, both from a theoretical and an experimental perspective. Important conceptual work has been done within several frameworks, among them the so-called British and American Schools of Intonation (see Prieto 2003 for an overview) and in the phonetic laboratories of Aix-en-Provence and Kiel (see Hirst & Di Cristo 1998 and Kohler 2008, respectively). The Autosegmental-Metrical (AM) model has had the largest impact in the field: It was originally developed by Pierrehumbert (1980) for the analysis of English intonation and is currently being adapted to describe a large variety of different languages. All descriptions in this book have been formulated in the spirit of the AM model, which thus constitutes the focus of the volume.

A central idea of the AM model is to clearly distinguish between the phonological structure, consisting of underlying tonal targets represented on a separate tonal tier, and the concrete F0 contour, produced by the speaker as a result of phonetic interpolation between the underlying targets. Furthermore, it is assumed that tonal elements associate with different layers of the Prosodic Hierarchy (see Selkirk 1984, among others): Whereas so-called pitch accents associate with metrically strong syllables, tonal targets signaling prosodic boundaries are associated with higher levels of the Prosodic Hierarchy, such as the (major) intonational phrase (IP) or the (minor) intermediate phrase (ip). On the basis of these assumptions, several tools have been developed which aim at facilitating the transcription of the intonational properties of empirical data. One of the most widely used AM-based transcription systems is the ToBI (Tone and Break Indices) labeling system (Silverman, Beckman, Pitrelli, Ostendorf, Wightman, Price, Pierrehumbert & Hirschberg 1992), which has been adapted for the transcription of Romance and Germanic languages such as Spanish (Beckman, Díaz-Campos, Tevis McGory & Morgan 2002 and Prieto & Roseano 2010) and German (Grice & Baumann 2002), among others. The various versions of the ToBI notation system share the common characteristic that pitch accents are annotated as starred tones, either as

monotonal targets ( $H^*$ ,  $L^*$ ) or as combinations thereof. The tonally marked prosodic boundaries associated with the different levels of the Prosodic Hierarchy are distinguished by adopting different break indices. During the last few years, there has been a growing interest in lower-level prosodic boundaries, i.e. those dividing larger prosodic units into smaller parts. Recent studies have concentrated both on the placement of the boundaries and on the relevant cues that signal the presence of a prosodic break on the phonetic surface (see Frota, D'Imperio, Elordieta, Prieto & Vigário 2007 for a comparative view of several Romance languages, and Féry 2010 for Germanic).

A central goal of the present volume is to expand the cross-linguistic perspective of phrasing, focusing thereby on languages from the Romance and Germanic families. Special emphasis is placed on phrasing in language contact situations and the phrasing solutions of bilingual speakers. Given that intonation is an area in which phonology, information structure, and syntax intersect, a further purpose of the book is to investigate the relevant intersections or interfaces. We tackle phrasing from a dual perspective: On the one hand, we discuss how phrasal boundaries are signaled through tonal and durational cues (e.g. lengthening and shortening effects) and/or through an increase or decrease in intensity, for example, and explore the role of such cues in the interpretation of phrasing. On the other hand, we try to elucidate the constraints placed on matches or mismatches between prosodic and syntactic phrasing. In addition, we aim to fill a gap in the recent literature on phrasing, which has largely concentrated on the analysis of read data, by placing particular emphasis on the challenges posed by the analysis of spontaneous (and semi-spontaneous) speech.

The individual contributions to this book are partly based on the talks presented within the scope of a workshop on *Intonational phrasing in Romance and in Germanic*, held at the Collaborative Research Center 538 "Multilingualism" at the University of Hamburg on January 23rd and 24th, 2009. The languages examined stem from the Romance and the Germanic families. All articles deal with at least one Romance language, either Catalan, French, Italian, Occitan, or Spanish. Two of the articles combine the study of a Romance language with a Germanic one, thus contrasting French with German and Spanish with German, respectively. Three additional contributions investigate possible influences of and interactions between Romance languages in multilingual settings, focusing thereby on Occitan and French in Southern France, on Catalan and Spanish in Barcelona, and on Italian and the Spanish variety spoken in the Argentinean capital Buenos Aires (*Porteño*). Two further papers concentrate on cross-dialectal comparisons, namely that of *Porteño* Spanish compared with other Argentinean varieties and Neapolitan Italian compared with the standard variety.



The first group of the papers assembled in this volume deals with **phrasing across languages**. The cross-linguistic approach presented here addresses the two Romance languages French and Italian as well as German.

In their article on “Correlates of phrasing in French and German from an experiment with semi-spontaneous speech,” **Caroline Féry, Robin Hörnig, and Serge Pahaut** examine correlates of prosodic phrasing in a comparative study of German and French. Semi-spontaneous utterances were elicited from 30 speakers of German and 20 speakers of French in an oral experiment in which the subjects described the spatial arrangement of toy animals on a table. Tonal excursions in German correspond to pitch accents and boundaries, but have a demarcative function in French. This difference is explained by the presence of lexical stress in German and its absence in French. Tones are peripheral in French prosodic phrases, but are associated with metrical heads in German; in addition, final lengthening is systematic in French, but not in German. Finally, deaccenting is used in German, but not in French, constituting a further prosodic difference between the two languages.

**Brechtje Post’s** paper on “The multi-faceted relation between phrasing and intonation contours in French” concentrates on the question of how lexical items are grouped to form prosodic units, and on the interaction between the accents within such groups and tonal contours in French. Her central thesis is that these interdependencies can readily be accounted for by assuming a formal model of grammar. Moreover, prosodic variation provides a valuable test case for verifying the explanatory power of such a model, given that any possible surface variability encountered in empirical data must be able to be predicted on the basis of the assumed underlying form. This view is supported by the results of a production experiment carried out with seven female native speakers of Parisian French who performed a reading task at two different speech rates. The study shows that the speakers’ phrasing decisions are indeed influenced considerably by speech rate, which does not, however, entail the modification of the underlying intonational grammar.

In a joint study on “Phrasing, register level downstep and partial topic constructions in Neapolitan Italian,” **Mariapaola D’Imperio and Francesco Cangemi** focus on an Italian variety that strongly differs from Standard Italian in several respects. On the basis of recordings made with five Neapolitan speakers who read three sentences in four different pragmatic contexts, it is shown that some lowering effects within a prosodic phrase in Neapolitan Italian are clearly triggered by certain information structures. More specifically, the authors show that in structures consisting of a subject DP and a subsequent VP, the register level of the separately phrased VP is lowered when it corresponds to a focus constituent immediately following a partial topic phrase. They also demonstrate that non-contrastive

topics are not necessarily separated from the rest of the utterance by a prosodic break, and that in the absence of such a break, the pitch accent associated with the VP exhibits higher F0 values. However, this kind of register subordination may not be confounded with the extreme lowering effects triggered by non-final contrastive focus.

The second group of papers concentrates on the **phrasing of languages in contact**, placing special emphasis thereby on the phrasing groupings and phrasing cues produced by bilingual individuals.

**Ariadna Benet, Conxita Lleó, and Susana Cortés'** "Phrase boundary distribution in Catalan: applying the prosodic hierarchy to spontaneous speech" constitutes one of the first contributions to the study of Catalan phrasing based on spontaneous speech. The article has three goals regarding the phonetic boundary cues of phrasing: First, to find out whether Spanish prosodically influences Catalan, especially in those urban districts of Barcelona in which Spanish is more dominant than Catalan; second, to compare phrasing in spontaneous speech to findings from read speech, and, third, to contribute to the identification of the relevant levels of phrasing in Catalan spontaneous speech. The analysis shows that the signaling of prosodic boundaries by means of sustained pitch and pitch reset seems to be more common in the Spanish-dominant districts. Furthermore, it is shown that sustained pitch appears in spontaneous speech, especially in enumerations, and is often associated with pre-boundary lengthening; as previously pointed out by Face (2003), downstep and especially final lowering rarely occur in spontaneous speech. Finally, it is demonstrated that the level of the intonational phrase is clearly delimited by boundary cues, more so than intermediate or phonological phrases. These findings are still tentative and the authors acknowledge the need to conduct additional work based on spontaneous speech.

**Trudel Meisenburg's** paper on "Prosodic phrasing in the spontaneous speech of an Occitan/French bilingual" examines the effects of language contact between Occitan and (Southern) Midi French, the latter being a variant of French quite different from Northern Standard French. The main focus of the article lies on the intonation of Occitan and Midi French. The author agrees to the claim that Occitan in terms of its pitch accents is an intermediate language between Spanish and Catalan on the one hand, and French, on the other, as the latter has substituted lexical stress and thus pitch accents by phrase-final risings and lengthening and optional phrase-initial rises. In the spontaneous speech of an Occitan/French bilingual who acquired Occitan as an L1 and whose French can be classified as belonging to the Midi variety, the author finds some shared features in the intonation of the two languages. Phrase-initial rises are often present, but only some of them are located on metrically weak syllables. Whether such tonal movements on weak syllables are an Occitan feature that has influenced French or a French

feature that has influenced Occitan remains an unanswered question. Vestiges of lexical stress are found in Midi French, which exhibits a greater independence of the prosodic word, arguably due to Occitan influence. Regarding phrasing in Occitan, boundary tones clearly delimit phrases, although no clear difference has been found between intonational and intermediate phrases.

Whereas Benet et al. and Meisenburg focus on prosodic phrasing in two different bilingual settings both involving different combinations of Romance languages, the contribution of Christoph Gabriel, Ingo Feldhausen, and Andrea Pešková “Prosodic phrasing in *Porteño* Spanish” investigates the impact of the historical situation of Spanish-Italian bilingualism in Buenos Aires on the phrasing decisions of today’s monolingual Spanish speakers. Regarding its prosodic shape, the urban vernacular of the Argentinean capital, called *Porteño*, is often described as following a pattern more similar to that of the migration-induced contact language Italian rather than that of other Spanish dialects. In the same vein as previous work, which had focused on ‘Italian’ features in the realm of pitch accent realization while largely disregarding larger prosodic units, this study shows that the phrasing decisions of *Porteño* speakers also reveal an Italian influence, though to a lesser extent than is the case for the shape of pitch accents. The data set analyzed for this purpose is comprised of recordings made with 25 speakers from Buenos Aires who read different broad-focus SVO structures, including different degrees of syntactic and prosodic complexity. It is argued that features of Italian prosody appear both in *Porteño* phrasing patterns and in the use of tonal and durational boundary cues.

The article by Laura Colantoni, “Broad-focus declaratives in Argentine Spanish contact and non-contact varieties,” broadens the view on Argentinean Spanish by including a variety that is in contact with the autochthonous language Guaraní, as well as non-contact varieties. The author reconsiders the hypothesis that the early peak-alignment of pre-nuclear pitch accents and downstep, which have been shown to be typical properties of Buenos Aires or *Porteño* Spanish, are the result of language contact with Italian. In order to test this hypothesis, recordings of *Porteño* semi-spontaneous speech were compared with data from Northeastern Argentinean Spanish (with contact to Guaraní) and varieties spoken in the western province of San Juan and the central province of Córdoba. The results largely confirm previous findings and show that *Porteño* Spanish differs both from other Argentinean contact and from non-contact varieties, especially in its early alignment of prenuclear accents (though without early alignment of the previous valley) and in the timing of the rising movement: *Porteño* Spanish lengthens the stressed syllable, though not as much as in the case of the variety spoken in Córdoba. The syllable bearing the nuclear stress shows a steep falling slope of the F0 contour and final lengthening. Such patterns are considered to be specific to

*Porteño* and are tentatively attributed to contact with Italian. However, additional information is necessary, both concerning previous diachronic stages and with respect to the intonation of Italian varieties.

The last article by **Martin Rakow and Conxita Lleó**, “Comparing cues of phrasing in German and Spanish child monolingual and bilingual acquisition,” explores first language acquisition and focuses on the interaction between Spanish and German as manifested in the phrasing produced by bilingual children. The authors analyze the frequency of occurrence of certain phonetic cues signaling phrase boundaries in broad-focus declaratives produced by three German and three Spanish 3;0 year-old monolinguals, as well as by three German-Spanish bilinguals of the same age. The phonetic cues analyzed are F0 reset, intonation contours (falling vs. rising and constant F0), pauses, final lengthening and glottal stop insertion. Although the frequency of use of such cues shows adult-like values in most cases, both in the monolingual as well as in the bilingual data, some differences are observed. On the one hand, the use of rising contours is kept to a minimum, which confirms their high degree of markedness. On the other hand, bilingual children produced a great deal of variation: while two bilinguals showed differences between their two prosodic systems, one bilingual used the German frequencies of occurrence in both German and Spanish. The article suggests the need for further research on early intonation and especially on spontaneous speech.

Before closing this foreword, we wish to sincerely thank the many reviewers who have kindly offered their time to make suggestions and recommendations, and in doing so have greatly improved the scientific value of the reviewed articles and the quality of this book. A number of the reviewers are also authors of this volume, though most of them are not. The following is a list of the reviewers in alphabetical order: Lluïsa Astruc, Stefan Baumann, Mercedes Cabrera, Laura Colantoni, Mariapaola D’Imperio, Ingo Feldhausen, Caroline Féry, Sónia Frota, José Ignacio Hualde, Klaus Kohler, Trudel Meisenburg, Bernd Möbius, Jörg Peters, Brechtje Post, Pilar Prieto, Rajiv Rao, Michelina Savino, and María del Mar Vanrell. We finally would like to express our gratitude to Liefka Würdemann for her help with the cross-checking of references.

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**PART I**

**Phrasing across languages**





# Correlates of phrasing in French and German from an experiment with semi-spontaneous speech\*

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Correlates of prosodic phrasing are examined in a comparative study between two languages, German and French. The material was elicited in a production experiment with 30 speakers of German and 20 speakers of French, who were asked to describe orally the spatial arrangement of toy animals on a table. Prosodic phrasing clearly correlates to syntactic structure in both languages, but tonal excursions correspond to pitch accents plus boundaries in German, and have a demarcative function in French. This difference is explained by the presence vs. absence of lexical stresses in the two languages. It is reflected in the position of tones, which are peripheral in the French prosodic phrases, but are associated with metrical heads in German, and also with final lengthening, which is systematic in French, but not in German. A final difference between the two languages is deaccenting, used in German, but not in French.

**Keywords:** French intonation, German intonation, spontaneous speech, localizations, word order, givenness, focus

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