Intonation in Romance

Edited by
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5

Intonational phonology of the regional varieties of Italian

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5.1 Introduction

The Italian language is characterized by an extremely strong phonetic and phono-
logical variation that differentiates the language across space, communicative situ-
ations, means of communication, social groups, and socio-economic classes (Berruto
2010; 2012). In this chapter, we consider the phonetic and phonological variation at
the prosodic and, in particular, at the intonational level, and we take into account the
varieties of Italian, i.e. the official language of Italy as spoken by speakers with
different regional accents. We focus on varieties of Italian spoken in most of the
areas identified in previous dialectological studies.[1]

A possible cartographic representation of the distribution and differentiation of
vernaculars (*dialetti*)[2] spoken in Italy is shown in Fig. 5.1. As the map shows, a
distinction is usually made between the Romance vernaculars spoken north of the
line connecting La Spezia and Rimini (von Wartburg 1950), that reflects a bundle of

FIG. 5.1 The main vernacular areas of Italy (adapted from Pellegrini 1977) and locations where
recordings were carried out

isoglosses differentiating Northern and Central vernaculars, and vernaculars spoken
south of the line connecting Rome and Ancona (Rohlfs 1937). Vernaculars north of
the La Spezia–Rimini line, for instance, show the shortening of Latin long consonants
and the lenition or deletion of Latin singletons (e.g., respectively, [ka'val(o)] vs.
[ka'vallo] *cavallo* 'horse' and [ka'vɛi] vs. [ka'pelli] *capelli* 'hair'); and vernaculars

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[1] This chapter stems from the analysis of data collected for different speech varieties by various working
groups, coordinated by the authors. The working groups are: *Milan*: C. Avesani, B. Gili Fivela, G. Marotta,
C. Di Biase; *Turin*: B. Gili Fivela, A. Romano, G. Interlandi; *Florence*: C. Avesani; *Siena*: G. Bocci; *Pisa*:
B. Gili Fivela; *Lucca*: G. Marotta, C. di Biase; *Rome*: R. Giordano, B. Gili Fivela, A. De Dominicis; *Pescara*:
M. Barone, P. Prieto, B. Gili Fivela; *Naples*: M. D'Imperio, C. Petrone, C. Crocco, F. Cangemi, I. Alfano,
R. Savy, R. Giordano; *Salerno*: C. Crocco, R. Giordano; *Cosenza*: P. Sorianello, C. Petrone, R. Giordano;
Bari: M. Savino, M. Grice, J. Di Napoli; *Lecce*: A. Stella, S. D'Apolito, B. Gili Fivela.

[2] Italian vernaculars (*dialetti*) cannot be considered as local variants of a standard language; rather, they
are linguistic systems largely autonomous from the common language, as they represent the continuation
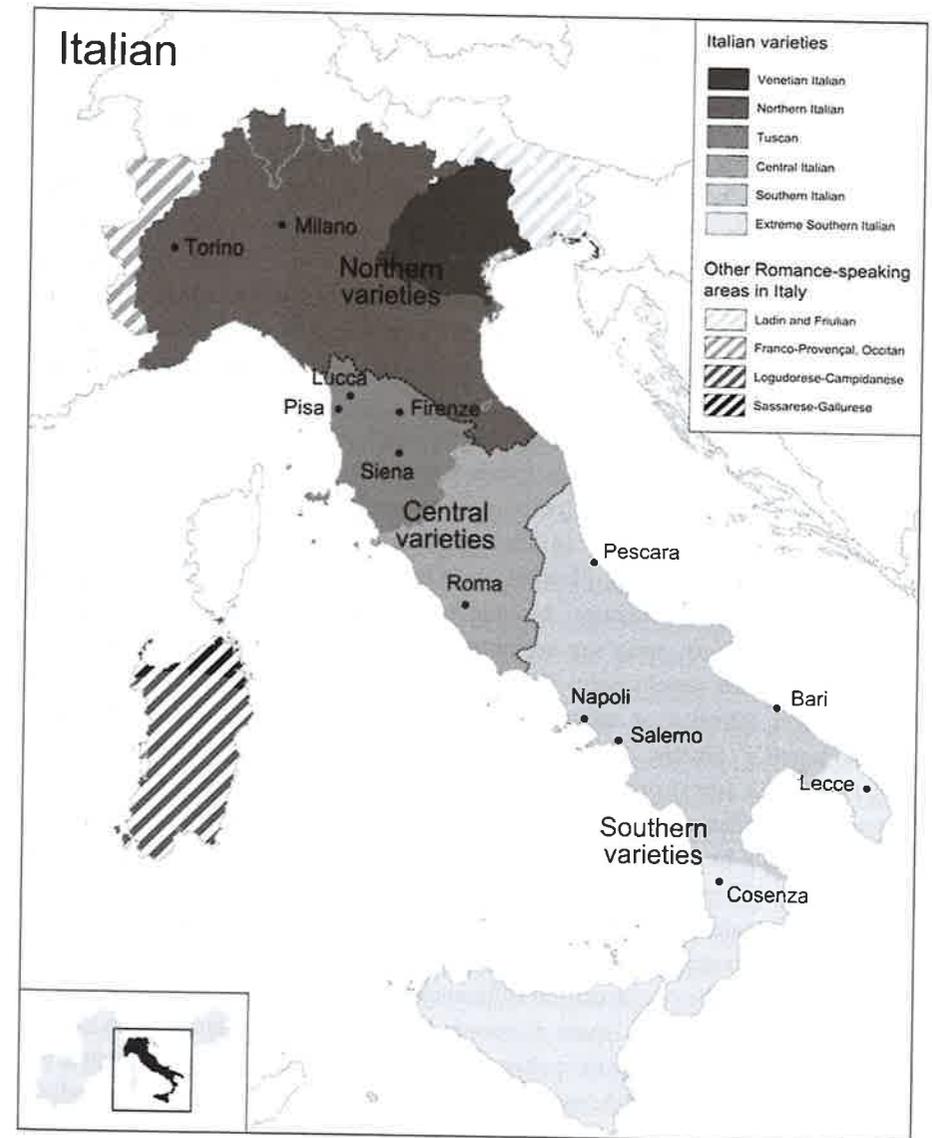
spoken south of the Rome–Ancona line show, for instance, the preservation of Latin long consonants and the progressive assimilation in -nd- and -mb- clusters (e.g. rom. ['gamma] vs. ['gamba] *gamba* 'leg').

In the Northern area, Eastern and Westerns part can be identified, on the basis e.g. of the presence/absence of rounded vowels (Ascoli 1882–5; e.g. piedm. ['fø] vs. ven. ['fogo] *fuoco* 'fire'). In the central area, Tuscany is distinguished from the other central vernaculars, which are identified as median along the classification due to Pellegrini (1977). Tuscany, for instance, is characterized by the presence of a lenition process known as *Gorgia* that consists of the spirantization of intervocalic unvoiced plosive consonants (e.g. ['diho] vs. ['diko] *dico* 'I say'), and by the absence of rounded front vowels similarly to the other central and southern vernaculars (e.g. tos. ['fɔho] vs. piedm. ['fø] *fuoco* 'fire').

On the other hand, the area immediately south of the Rome–Ancona line is characterized by the presence of a schwa vowel in unstressed position, especially word finally before pauses (e.g. [na'bːɛlla'femmənə] vs. [na'femməna'bːɛllə] *una bella donna* 'a beautiful woman' in Abruzzese) and by the /s/ affrication, often with voicing too, after liquids (e.g. ['bortsa] and ['bordza] *borsa* 'bag'; affrication is also found in some areas of Tuscany). Moving further south, the vernaculars spoken in the extreme Southern areas are separated from the others (Bertoni 1916). They mainly show a five-vowel system, with the three extreme vowels used in unstressed position, and retroflex or cacuminal consonants (e.g. [ka'vaɖɖu] vs. [ka'vallo] *cavallo* 'horse').[3] Finally, other areas that are distinguished on the map, in line with Pellegrini's (1977) proposal, are those in which Franco-Provençal, Sardinian, Ladin, and Friulian are spoken, although the latter group was not considered as peculiar to Italy by other linguists (such as Ascoli 1882–5), to the extent of being composed of different languages.

Such a composite picture has not been drawn with reference to prosodic variation, but rather considering both linguistic factors concerning the distance of vernaculars from Latin or synchronic structural differences, and extralinguistic factors, such as geographical and historical issues; moreover, it relates to vernaculars spoken in Italy rather than to Italian as actually spoken in different areas of the country, which is the focus of this chapter. Nevertheless, the complex and differentiated substratum which characterizes the areas in which Italian is spoken offered clear hints for selecting the varieties of Italian to focus on in order to address the issue of language variation related to prosody and intonation. Indeed, differences may be expected in Italian when we consider that a common language in Italy is quite recent. The diffusion of Italian as a common language was still taking place around fifty years ago, as from the mid-1950s to the mid-1960s television played a major role in 'teaching' the Italian

language to people who were basically speaking different vernaculars (Beccaria 1988–2002: 73; De Mauro 2011[1963]).

Thus, giving priority to the varieties of Italian whose prosody and intonation had been previously specifically investigated, we selected thirteen varieties of Italian that belong to different areas as defined by dialectological studies (Fig. 5.1): two Northern varieties (Turin and Milan); five Central varieties, among which four represent Tuscany[4] (Florence, Siena, Pisa, and Lucca) and one represents the median varieties (Rome); four Southern varieties (Naples, Salerno, Pescara, and Bari); and two varieties spoken in the extreme South (Cosenza and Lecce).

5.1.1 *Stress and rhythm*

Italian words can be stressed on the four last syllables (clitics excluded, such as in /ka.pi.'to/ *capitò* 'it happened', /ka.'pi.to/ *capito* 'understood', /'ka.pi.to/ *càpito* 'I arrive', /'ka.pi.ta.no/ *càpitano* 'they happen', while by adding enclitics, syllables more distant from the end can be stressed too, as in /'ka.ri.ka.me.lo/ *càricamelo* 'charge it to me'). Lexical stress position is free, although stress is more often found on the penultimate syllable (93.3% of bisyllabic, 81.1% of trisyllabic words: Mancini and Voghera 1994) and, in some cases, stress position can be predicted on the basis of morphological information (e.g. 3pl indicat. or subjunctive present *àgitano* 'they shake', *precipitino* 'they fall', or names in -a/igine, -a/iggine -*indàgine* 'investigation'). In long, generally complex words, there is secondary stress (e.g. [ˌpɔrtaom'brɛlli] *portaombrelli* 'umbrella stand').

According to some linguists, stress clashes are usually avoided, especially in Northern varieties, by shifting the first stress (e.g. [lune'di'skorso] → ['lunedi'skorso] *lunedì scorso* 'last Monday'), while stress valleys are avoided by means of secondary stress insertion (e.g. ['indikaʎelo 'subito] → ['indikaˌʎelo 'subito] *indicaglielo subito* 'indicate it to him immediately') (Nespor 1993). However, in some varieties, stress moves even in non-clash conditions (e.g. in some Northern varieties penultimate stress may be anticipated /'rubrika/ vs. /ru'brika/ *rubrica* 'telephone/address book'), and in Southern varieties the last full vowel of words ending in consonants may be stressed (e.g. [pul'mannə] vs. ['pulman] *pulman* 'bus') (Maturi 2006; Schmid 1999).

As far as rhythm is concerned, beyond an expected general tendency to a syllable-timed organization (Bertinetto 1981), more recent acoustic investigations have questioned the straightforward identification of Italian as a syllable-timed language (Marotta 1985; Vayra et al. 1984), in line with the growing awareness that expected isochronies, e.g. syllable vs. stress timing, are not systematically found in connected speech (Roach 1982). In particular, different characteristics have been identified for specific varieties (and vernaculars) of Italian, to the extent that some varieties have

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[3] Retroflex or cacuminal consonants are also found in other, quite distant areas, such as in some areas of Tuscany.

[4] Tuscany is represented by a high number of locales, both because it shows quite a high phonetic and phonological internal variation (Giannelli 1997; Calamai 2004; Marotta 2008) and because it played an important role in the historical evolution of Italian (Migliorini 1960; Lepschy and Lepschy 1981).

been reported to show features similar to those found in stress-timed languages, for instance in Calabria (Romito and Trumper 1989; Trumper et al. 1991; Schmid 2004; also Giordano 2008a; Romano et al. 2010). Acoustic investigations and recent proposals on the use of different metrics for characterizing rhythmic structures (e.g. Ramus 2002; Grabe and Low 2002; Bertinetto and Bertini 2008; Bertini and Bertinetto 2009) have clearly shown that languages differ in their rhythmic characteristics in a continuous rather than categorical way. Although a comparison between results obtained by means of those metrics show that some languages may be found to belong to different groups depending on the metric used (e.g. Mairano and Romano's 2010 results on Japanese and Turkish vs. English and French, whose characteristics are more stably classified), it is clear that not all varieties of Italian show the same rhythmic features. Bearing in mind the complex situation, experimental investigations concerning rhythm are in fact carried out by carefully selecting the reference corpora, for example on the basis of the linguistic variety spoken by informants (e.g. Taranto et al. 2011).

5.1.2 *Literature on Italian intonation*

Regarding intonation, the picture is equally complex. Not even the first descriptions of Italian treated it as if it was homogeneous, as if a Standard Italian intonation traditionally equated to Tuscan intonation was possible to find (Lepschy and Lepschy 1977). Nevertheless, basic tunes for a standard variety of Italian were identified, (Fiorelli 1965; Agard and Di Pietro 1965) or, in some cases, investigators did not feel the need to specify the variety of the speakers considered, assuming they were describing a prestigious and standardizing variety or the speech of professional speakers (Ames 1969; Avesani 1990). However, in line with the observation that Standard Italian is more a theoretical reference than a language variety spoken throughout Italy (Berruto 2007; 2010; 2012; Lepschy and Lepschy 1977: 63, who stated that Standard Italian "does not exist in actual usage but is not even an ideal to which existing varieties strive to conform"), some works focused on specific varieties, stating which were going to be described and used to support a possible generalized description (Lepschy 1978; Chapallaz 1979; Canepari 1985). More recently, acoustic analyses performed in the last three decades more and more often have been carried out carefully considering the language in its several manifestations, differentiated along the various dimensions mentioned above. Although not to the same extent, intonation characteristics have been investigated regarding Italian as spoken in various cities and towns that belong to different dialectological areas and that are more than those we consider in this chapter.[5]

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[5] Among the Northern varieties, besides Turin and Milan, Genoa, Bergamo, Padua, Venice, Bologna, and Parma have been investigated (for Genoa, Crocco 2011; for Padua, Magno-Caldognetto et al. 1978; for Bologna, De Dominicis 2001; 2002; for Padua and Bologna, Endo and Bertinetto 1997; for Bergamo, Venice,

However, the analyses performed in the various studies are carried out with reference to different theories and approaches, with obvious impacts on the choices related to data coding and description. For instance, a purely phonetic description of the varieties spoken in Padua and Florence is given by Magno-Caldognetto et al. (1978), or for those spoken in Milan, Padua, Bologna, Pisa, Macerata, Rome, Naples, Lecce, and Cosenza by Endo and Bertinetto (1997) and for the area south of Lecce by Romano (2003); to offer another example, a description based on the identification of tonal movements, along the lines of the IPO approach ('t Hart et al. 1990), is given by Cresti et al. (2003) and Firenzuoli (2003) for Florentine Italian.

As far as Autosegmental Metrical analyses are concerned, several investigations have been carried out in the past decades, offering quite detailed descriptions of a number of varieties of Italian:[6] for Milan, Rome, and Catanzaro, e.g. Sardelli (2006); Marotta and Sardelli (2009); for Bologna and Rome, De Dominicis (2001; 2002); for Rome and Perugia, Giordano (2006; 2008b; 2011); for Turin, e.g. Romano and Interlandi (2002), Interlandi (2003), Gili Fivela et al. (in press); for Genoa, Crocco (2011); for Florence, e.g. Avesani (1990; 1999); for Florence and Siena, Bocci and Avesani (2011); for Siena, Bocci and Avesani (2006), Bocci (2013); for Lucca, Siena, and Florence, e.g. Marotta (2001; 2002); Marotta and Sorianello (1999); for Pisa, e.g. Gili Fivela (1999; 2008); for Naples, e.g. Caputo (1996), D'Imperio (1997; 2001; 2002), Giordano and Savy (2003); for Cosenza, e.g. Sorianello (2001; 2011); for Bari, Grice and Savino (1997; 2003; 2004), Savino (2001; 2004), Savino and Grice (2007; 2011), Sorianello (2010; 2012); for Bari and Pisa, e.g. Gili Fivela and Savino (2003) and Savino et al. (2006); for Lecce, Stella and Gili Fivela (2009), Stella et al. (2011), and Vanrell and Cabré (2011); for Palermo, Grice (1995); for comparisons of a larger number of varieties, Grice et al. (2005) for Florence, Naples, Palermo, and Bari; Savino (2009; 2012) and Crocco (2013) for Turin, Bergamo/Brescia, Milan, Venice, Genoa, Parma, Florence, Perugia, Rome, Cagliari, Naples, Bari, Lecce, Catanzaro, and Palermo.

Most of these studies offer descriptions of specific speech styles of one or a small number of varieties, pointing out (part of) the intonational inventory of specific varieties and offering a valuable contribution to the understanding of intonation characteristics of Italian. Nevertheless, the analyses offered in the above-mentioned works sometimes refer to different speaking styles that may differ both phonetically

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and Parma, Savino 2009; 2012); among the central varieties, Macerata and Perugia have also been described, apart from Florence, Pisa, Lucca, Siena, and Rome (for Perugia, Giordano 2006; 2008b; 2011; Savino 2009; 2012; for Macerata, Endo and Bertinetto 1997); of the varieties spoken in the extreme South area, apart from Cosenza and Lecce, Palermo and Catanzaro have been investigated (for Palermo, Grice 1995; for Catanzaro, Savino 2009; 2012); and, finally, Cagliari has been described as for the Sardo area (Savino 2009; 2012).

[6] Some works mentioned here (esp. De Dominicis 2001; 2002; Romano and Interlandi 2002; Interlandi 2003) referred to the Autosegmental Metrical approach although they were only partially carried out within the framework.

and phonologically, at least in terms of preferred patterns (e.g. read, spontaneous, and semi-spontaneous speech with reference to the preference of high boundary tones in more spontaneous speech styles, as shown by Blaauw 1995; for Italian, the preference of high vs. low boundary tones in Bari Italian yes/no questions reported by Savino 1997; 2012). This fact may then have had an impact on the identification of the tonal inventory of some of the varieties. Moreover, especially in studies focusing on one specific variety, the analyses proposed may be only partially consistent with others, being, for example, less phonetically transparent than others and, in general, not facilitating a cross-variety or even a cross-language comparison.[7] In fact, the necessity of a good balance between system-internal phonological considerations and cross-system consistency, or even phonetic transparency, is particularly "evident and complex when the need for comparing phonological analyses of different varieties of a language is taken into account" (Gili Fivela 2008: 41; see also Gili Fivela 2006b). Cross-system inconsistency and clear lack of transparency may be due to system-internal phonological considerations that are well motivated. For instance, in analyzing Neapolitan Italian, D'Imperio (1999) made a clear variety-internal choice when she decided to use L*+H for the nuclear accent of interrogatives after obtaining phonetic evidence for the suitability of L+H* as a label for the pitch accent of narrowly focused constituents in declarative sentences; indeed, no clear suggestions for two different analyses stemmed from the phonetic characteristics of the two pitch accents, as no conspicuously different alignment in the two accents was found. Nevertheless, when cross-system inconsistency and lack of transparency are not due to strong phonological arguments, they are not desirable as they represent an obstacle to the cross-variety, and cross-language, comparison.

To our knowledge, the only work that has systematically developed the analysis of a high number of varieties in parallel so far is Savino's (2012) survey on polar questions in Italian and Crocco's (2013) study on intonation of right dislocation in declaratives and yes/no interrogative sentences. In focusing attention on fifteen different varieties, by referring to a public corpus which was created by collecting data with reference to homogeneous criteria, the authors ensured a higher level of comparability in comparison with that found in other work. Nevertheless, their overview on Italian is focused on either a subtype of one sentence modality or a specific syntactic-pragmatic structure.

Some attempts have also been carried out to offer proposals for a labeling standard. The most successful work done in this direction is that by Grice et al. (2005), who pointed out some key aspects concerning Italian, e.g. the existence of finally falling

contours for yes/no questions in some varieties of Italian and the existence of postfocal accents. However, they did that on the basis of observations basically related to four varieties only (Florence, Naples, Bari, and Palermo). Grice et al. (2005) also formulated some labeling proposals, e.g. the use of the label 'n' to unambiguously identify the nuclear accent, but, owing to the limited number of varieties considered and the heterogeneous data concerning those varieties, did not offer a comprehensive and wide account of the intonational phonology of Italian varieties.

Thus, a comprehensive and shared proposal for the analysis of both a wide number and representative types of varieties is still lacking. Nevertheless, the work performed so far allows us to sketch the composition of the intonational inventory and the main phonological processes relevant for the varieties of Italian.

5.1.3 *Intonational inventory and phonological processes*

According to analyses performed so far, the intonational inventory for the varieties of Italian is composed of monotonal and bitonal pitch accents, phrase accents, and boundary tones.

A schematic representation and description of pitch accents is offered in Table 5.1. Some pitch accents are used under specific conditions, such as in postfocal position

TABLE 5.1 **Inventory of monotonal and bitonal pitch accents in varieties of Italian: schematic representation and description, examples of their functions, and varieties in which they are found**

	L*	Phonetically realized as a low tone at the minimum of the speaker's range in the TBU with no significant difference in comparison with the pretonic F0 level. Postfocal, e.g. in Florence and Siena Italian, and prefocal position, e.g. in Naples.
	H*	Phonetically realized as a high tone in the TBU with no, or small, difference in comparison with the pretonic F0 level. Yes/no questions in Florence and Siena, postfocal position in Naples, commands in Bari, and exclamatives in Cosenza.
	H+L*	Phonetically realized as a F0 fall from a high pretonic syllable to a low tone which is usually aligned within the TBU. The height of the pretonic syllable is variable: it may be a clearly high target, the end of a plateau, and sometimes a high target may be even hard to detect, being included within a quite gradual fall. Broad focus, final item in lists, and disjunctive questions in most varieties, wh-questions in all varieties. It is often found in commands and it may be found in exclamatives.

[7] The problem persists even in the case of proposals that aim to offer transcriptions that are clearly more phonetically transparent, e.g. by explicitly labeling cases in which two targets are aligned within the same syllable (e.g. Marotta 2000 proposes to label as (H+L)* the H+L* pitch accents found in some Lucca questions).

TABLE 5.1 Continued

	H*+L	Phonetically realized as a rise to a peak around the middle of the syllable, in the first half of the vowel, and a fall that reaches the end in the TBU (often in the vowel). In some cases, the peak may correspond to the end of a shallow rise or a plateau. Contrastive-corrective focus in Pisa, Cosenza, Bari, Lecce, and Pescara. Yes/no questions in Milan, Pisa, Rome, Pescara, Salerno, and Lecce.
	L+H*	Phonetically realized as a F0 rise with the peak aligned by the end of the TBU; an early peak variant is often found. Lists and the first item of disjunctive questions; yes/no questions in Turin, Salerno, Cosenza, Bari; wh-questions in Rome and Cosenza. The early peak variant is used in contrastive-corrective focus in Milan, Turin, Florence, Siena, Lucca, Naples, and Salerno.
	L+<H*	Phonetically realized as a F0 rise with the peak in the post-tonic syllable or later. Found in vocatives, especially in the first call, in all varieties, besides being also attested in prenuclear position in several varieties.
	L+¡H*	Phonetically realized as a F0 rise with a superhigh peak at the end of the TBU. Incredulity and counterexpectational wh-questions in all varieties.[a]
	L*+H	Phonetically realized as low or a fall to the TBU and a F0 rise in the second half of the TBU, with a peak even before the end of the tonic or in the posttonic syllable. Yes/no questions in Turin and Naples (where, however, the low is is aligned much earlier; see discussion in text) and wh-questions in Pescara and Salerno.
	L*+>H	Realized as a F0 fall to the TBU followed by the rise to an early peak in the tonic syllable (by the end of the vowel in closed syllables). Exclamatives in Turin, Milan, Rome, Lecce, and Lucca.
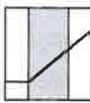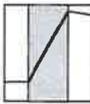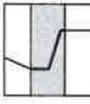
[a] The analysis is not available for Naples and Bari.

only (e.g. evidence for L* in Florentine and Siena varieties; cf. Bocci and Avesani 2011; Bocci 2013) and in prenuclear/focal position (e.g. L* in Neapolitan; Grice et al. 2005). However, some pitch accents were originally observed and proposed for specific varieties, and the analysis of the corpus considered for this work revealed their existence in other varieties too. The corpus analyzed here also suggested the existence of an upstep rise, L+¡H*, basically found in most varieties for counterexpectational

Processes such as pitch accent downstep, copying, tone merging, tone spreading, and pitch accent secondary association have been proposed in relation to varieties of Italian. For instance, Grice et al. (2005) suggest that postnuclear downstepped L+H* and L*+H are found in Bari and Palermo yes/no questions (as the absence of postnuclear accents affects the interpretation of the utterance as a question).

As for copying, Grice et al. (2005) argue that pitch accents are copied onto the following phrase in Palermo and Bari yes/no questions (where non-final L+H* focal accent is copied onto the last stressed syllable), and Gili Fivela (2008) suggests that a H+L* H- pattern is copied onto the postnuclear phrase in the case of early-focus Pisa Italian yes/no questions.

A process of tone merging for the H target of the L*+H and the HL- phrase accent has been proposed in short (one-word) constituents in Neapolitan Italian vs. a clear separation of the two (giving rise to a high plateau) in long-focus constituents (D'Imperio 1999). The same process is found in Pescara Italian, where the merging regards the H targets of L+H* and H+L* pitch accents in one-word constituents, giving a realization of H+L* that systematically includes a particularly high pitch leading tone, for instance in broad and narrow non-contrastive focus. When the tonal targets are separated, a high sustained plateau is found, due to the L+H*'s H tone spreading (see also §5.3.1.1). In Pescara Italian, both the merging and the spreading have a clear scope that relates to prosodic constituents corresponding either to the object in SVO sentences or, in cases where there is an adverb modifying the verb, to the phrase starting from the adverb (the high plateau due to H spreading may also be found before H*+L in narrow contrastive-focus and yes/no questions and L*+H in obvious statements that are also contradictory).

Finally, the existence of pitch accent secondary association has been proposed for Neapolitan and Pisa Italian (Prieto et al. 2005). In Neapolitan Italian, the starred tones (H in L+H* and L in L*+H) have been proposed to be secondarily associated to the first mora of the stressed syllable (respectively, L+H*]μ and L*]μ+H, where ']μ' represents the mora boundary). In Pisa Italian, the high tone was proposed to be associated with the syllable right boundary in the H* pattern (H*]σ) and to the first mora in the H*+L pitch accent (H*]μ+L).

Turning to edge tones, the set of units needed to account for the intonational phonology of Italian is shown in Table 5.2, in which a schematic representation is offered of phrase accents, boundary tones, and their combinations as found in the analysis of the varieties that have been considered so far. Notice that here previous analyses corresponding to combinations of equal tones are collapsed and represented by one symbol only (e.g. L-L% becomes L%) and sequences of different edge tones are reported with no intermediate hyphen, if this choice does not interfere with the coding of specific phonological features (e.g. H-L% becomes HL%, while the hyphen is maintained in the labeling of the Neapolitan bitonal phrase accent in

TABLE 5.2 **Inventory of edge tones in varieties of Italian: schematic representation and description, examples of their functions, and varieties in which they are found**

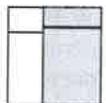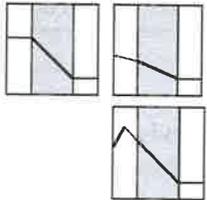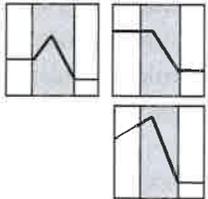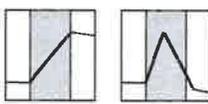|	Tone	Description
	L- or L%	If it is a phrase accent or a boundary tone, it is realized as a low or falling tone whose target is toward the bottom of the speaker range. Statements and questions in all varieties.
	H- or H%	If it is a phrase accent or a boundary tone, it is realized as a rising, high, or level high F0, especially if preceded by a rising or high pitch accent. Statements, lists, and continuation contours; wh-questions in Rome, Cosenza, Pescara, and Salerno.
	H!H%	The edge tone combination corresponds to a high followed by a mid F0 target. After a rising or a high pitch accent, it is realized as a high followed by a downstep and a plateau at a mid F0 level. Vocative initial call of all varieties.[a]
	LH%	It is realized as a final rise from a falling or low level F0 stretch. Continuation contours; yes/no questions of all varieties except Naples; wh-questions in 9 out of 13 varieties.
	L!H%	The edge tone combination corresponds to a shallow final rise from a falling or low level F0 stretch. Counterexpectational yes/no questions in Lecce.
	HL- or HL%	It is realized as a final fall from a rising or high level F0 stretch. Yes/no questions in Pisa, Lucca, Turin, and Naples, and imperative requests in Pescara. The phrase accent is the right edge of narrow contrastive-focus constituents in Naples.
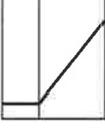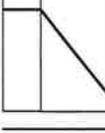
[a] The analysis is not available for Bari.

combinations, rather than bitonal boundary tones. There is indeed evidence of nuclear pattern copying that involves both the nuclear pitch accent and the following phrase accent, with no low boundary tone involved (e.g. H+L* H- is copied from H+L* HL% in Pisa Italian: Gili Fivela 2008), calling the possible postulation of bitonal boundary tones into question.

Most phrase accents and boundary tones, as well as some of their combinations, are found in basically all varieties of Italian (e.g. L-, H-, L%, H%), while others are less frequent. As for phrase accents, HL- is found in narrow contrastive focus in

Neapolitan (D'Imperio 1999; 2000; 2002), while in all varieties phrase accents such as L- and H- signal phrase boundaries that, of course, may be accompanied by other prosodic changes, such as duration modifications, and may be followed by pitch range changes on the basis of information structure and dependency relations among phrases. As for edge tone combinations, HL% is found in yes/no questions in some Tuscan varieties, such as Lucca and Pisa Italian (Marotta and Sorianello 1999; 2001; Gili Fivela 2002b; 2008), in Pescara Italian (Barone in prep.), or in Bari Italian, where it is one of the possible terminal contours conveying non-finality in a list (Savino 2001; 2004); LH% may be found in continuation contours, in yes/no questions of all varieties, but Naples, and wh-questions of most varieties. Finally, L% is found cross-variety in statements and in wh-questions of most varieties and H% is mainly found in continuation contours and in wh-questions in Rome, Cosenza, Pescara, and Salerno.

As already observed for pitch accents, some edge tones have been originally attested within a specific variety, and the analysis of the corpus considered in this work revealed their existence in other varieties too. For instance, a mid tone (!H) was first reported in relation to differences in the degree of assertiveness in declaratives (e.g. in Naples: Crocco 2004), and it was later found to be phonologically relevant at the edge of vocative phrases in Logudorese Sardinian and in some varieties spoken in Salento (Vanrell and Cabré 2011). In the investigation reported here it was then found cross-variety for vocatives, in which it is transcribed in combination with a high tone (see H!H% in Table 5.2).

Processes such as tonal truncation and phrase accent secondary association have been proposed in the analysis of some varieties of Italian.

Truncation of the final low edge tones in L*+H L-L% yes/no question contour (when the pitch accent is nuclear in an intonational phrase) was first described by Grice (1995) for Palermo Italian. However, truncation does not always appear to be an all-or-none process. For instance, partial truncation or compression of the phrasal tones has been observed in Bari Italian yes/no questions, after the nuclear L+H* pitch accent (Savino 2000; Grice et al. 2005). In spontaneous speech, the terminal fall can be either fully realized (L%) or partially truncated, depending on speaking rate. In read speech, instead, where a rising LH% is the most typical final contour, the more complex to-be-realized L+H* LH% tonal sequence can be compressed in the phrase-final nuclear syllable, which is considerably lengthened (Refice et al. 1997; Grice et al. 1997). To offer another example, in Pisa Italian yes/no questions (H+L* HL%) speakers may either preserve or truncate the final F0 fall (i.e. the L% target) in case of tonal crowding (Gili Fivela 2008).

As far as secondary association of edge tones is concerned, Grice et al. (2005) suggest that the edge tone is secondarily associated with the stressed syllables in Florentine Italian postnuclear accents (preceded by phrase accents).[8] Moreover, in

[8] A slightly different analysis, albeit in line with the proposal by Grice at al. (2005), has been formulated in Bocci (2013) and Bocci and Avesani (2015). Their analysis of nuclear

the case of contrastive focus in Neapolitan Italian, in the pattern composed by L+H* followed by a HL phrase accent, the latter is argued to have a secondary association with the last stressed syllable of the focused constituent (D'Imperio 1999).

5.1.4 Intonational phrasing

As shown above, the inventory of edge tones includes both boundary tones and phrase accents, tone events that are associated with the edge of different prosodic domains, i.e. the intonational and the intermediate phrase. As discussed in Grice et al. (2005), both domains are attested in many Italian varieties, while there is no evidence for the existence of constituents smaller than the intermediate phrase as signaled by tonal events. The existence of intonational phrases is uncontroversial, and may be signaled by both high and low boundary tones associated with the right edge of the prosodic domain (although the high tone may be associated with the left edge too, as proposed for exclamatives in Florence Italian: see §5.3.2). As for the intermediate phrase, evidence is reported of the existence of boundaries signaled by phrase accents in the case of postposed vocatives (vocative tags) and right-dislocated adverbials (sententially attached) in the variety spoken in Florence. In these cases, the displaced element is realized within a much lower pitch range than the preceding item, though being always perceived as prominent (Avesani 1995; Hirschberg and Avesani 2000; Bocci 2013; Bocci and Avesani 2015). Other cases in which the presence of an intermediate level of phrasing is realized correspond to sentences with left dislocation of the subject (Avesani 1990), ambiguous syntactic attachment of prepositional and adverbial phrases, ambiguous reading of relative clauses (restrictive vs. non-restrictive), and sentences with ambiguous scope of negation: they can be disambiguated by signaling the existence of differences in phrasing mainly through a phrase accent, H- or L- (Avesani 1999; Hirschberg and Avesani 2000). Along similar lines, intermediate phrase boundaries are described for the varieties spoken in Bari and Palermo, for instance before the main clause in cleft sentences, and for the variety spoken in Pisa, where left-dislocated topics contrasting syntagmatically were found to be marked by a low edge tone, and the phrase accent was argued to mark contrastive topics in general, for instance also those corresponding to subject constituents rather than clear left-dislocated constituents (Gili Fivela 2008: 174, building on Gili Fivela 1999).

by the need to clarify the nature of postnuclear prominence: whatever phonological interpretation is adopted—a secondary association of edge tones to postnuclear stressed syllables or a primary association of accentual tones—it should be explained why only some and not all the lexically stressed syllables occurring in postfocal context are perceptually prominent. In a production and comprehension experiment it is shown that postfocal elements are phrased into prosodic constituents and that, within such postfocal constituents, the phrase-level metrical head is assigned to the element occurring in the metrically strong position. The element that qualifies as metrical head must be tonally specified.

5.1.5 Summary

Despite the lack of a comprehensive and shared proposal for the analysis of both a wide number and representative types of varieties of Italian, the substantial amount of work described in the literature points, first, to the existence of a set of pitch accents and edge tones that have been useful to describe a number of varieties of Italian, second, to the relevance of various phonological processes related to such tonal events, and, finally, to the existence of two levels of prosodic constituents whose boundaries are tonally marked.

In this work we propose that the inventory of pitch accents and edge tones described above, as well as the types of phonological processes and prosodic constituents, are part of the intonational features of Italian as spoken in various areas, and may well represent the reference for a labeling system that can be shared by scientists working on Italian. We will examine this hypothesis by considering (1) various sentence types that are described for a number of varieties of the language, offering a wide perspective on the variation in Italian, and, importantly, (2) data collected with the same method (actually the very same material will often be available for discussion) and labeled keeping in mind variety-internal consistency as well as cross-variety and cross-language considerations. Being able to refer to homogeneous and rich data for several varieties represents one of the novel aspects of this work, offering a precious opportunity to widen our perspective on intonational variation in Italian, and enabling us to disentangle a complex picture.

5.2 Methodology

In this chapter we focus on thirteen varieties of Italian: those spoken in Milan, Turin (Northern area), Florence, Siena, Pisa, Lucca (Tuscany area), Rome (median area), Pescara, Naples, Salerno, Bari (southern area), and Cosenza and Lecce (extreme South area). They were mainly chosen from those for which we already have detailed studies, offering reference to previous work containing evidence for specific phonological analyses. A few extra varieties were added—Turin, Pescara, and Salerno—in order to better represent the main linguistic areas of the Peninsula (see Fig. 5.1).

In line with the procedure followed for the other Romance languages, materials were elicited by means of the Discourse Completion Task (Blum-Kulka et al. 1989), which included 31 situations that were common across languages (questionnaire accessible at http://prosodia.upf.edu/iari; Prieto et al. 2010–14), and 26 situations that were added for Italian: 16 were maintained from the questionnaire initially used for Catalan (Prieto 2001, Prieto and Cabré 2007–12); 10 were added by the Italian group to be able to check for the implementation of pitch patterns in specific prosodic contexts (e.g. number of pre/posttonic syllables available a situation) and to explicit intonation to check

TABLE 5.3 **Example of situation/context and answer**

Situation/context:	Entri in pasticceria e senti un buon odore di mandorle.
Example of response:	Così lo dici al pasticcere.
	Ma che buon odore di mandorle!

patterns in marked syntactic structures (e.g. in left/right dislocated constituents, 7 situations). Of the added material, only sentences showing specific prosodic features were considered for this chapter, in order to check the phonological analyses provided, for a total of 34 situations.

Specific criteria adopted for Italian relate to speaker selection and recording procedure. For each variety, five speakers were selected (2M-3F or 3M-2F), aged 20–35 years (although, if necessary, we accepted a few speakers older than 35). All speakers had been continuously exposed to the related variety of Italian, used it for everyday conversation, and had a similar educational level that varied from high school to university degree.

For data elicitation we offered each time a situation/context and an example of response (see Table 5.3). Stimuli were presented in pseudo-randomized order[9] with the constraint that stimuli of the same category ('clausal type' and 'semantic/pragmatic' import) could not occur in a sequence.

For each of the target sentences, speakers were asked:

(i)   to read carefully and understand a written text describing a context/situation, presented over the screen (or a paper sheet);
(ii) to produce a spontaneous utterance which would fit with the situational context presented (speakers were free in both syntactic and lexical choices);
(iii) to read as spontaneously as possible the target sentence proposed by the experimenters as suitable for the same context.

The whole set of target utterances was presented twice, with two different random orders. Thus, four renditions of the same target interpretation were recorded for each speaker: two "spontaneous" realizations (not necessarily identical in lexical and syntactic structure) and two read ones (i.e. two repetitions of the same sentence).

Interviewers were members of the subgroups working on the Italian project (see fn. 1 to this chapter) and they were usually, though not always, speakers of the same varieties spoken by the informants. Different working groups used different recording equipment and recording sessions took place in various settings. Nevertheless, all groups ensured high standards by selecting high-quality instruments (e.g. various recordings, for instance those relating to Pisa and, partially, Turin were made on a

Sony-DAT recorder and a Shure-SM58 microphone; those performed in Lecce were made by means of a Mackie-1402 VLZpro Mixer and a Shure-SM86 condenser microphone), an appropriate sampling rate (minimum 22050 Hz), and the choice of appropriate recording settings (e.g. silent or even soundproof rooms).

A total of 14,364 utterances were recorded (57 situations × 4 renditions × 5 subjects × 13 varieties, apart from Turin, for which 4 subjects were recorded, of whom 2 only performed two renditions) and 8,338 utterances were analyzed (34 situations × 4 renditions × 5 subjects × 13 varieties, apart from some contexts which have not been analyzed yet for some varieties, specified in the following sections, which are not included in the present count). The analysis was applied to all renditions, both spontaneous productions and read utterances, in line with a precise method underlined by Bruce and Touati (1990: 37): "The ideal general methodology would then be some kind of cyclicity between test material and spontaneous speech using feedback from preceding studies." However, in the following sections we report on patterns found in spontaneous renditions, whose relevance and specific alignment characteristics were nevertheless confirmed by read productions (chosen among the most spontaneous ones). As far as possible we chose the examples from the spontaneous renditions, although we systematically preferred utterances corresponding to highly comparable sentence and prosodic structures among those unambiguously showing the pattern characteristics (i.e. for clarity of comparison, in some cases we gave priority to read examples). Thus, the proposed analyses are taken to be not dependent on speech style unless differently specified.

The phonological analysis of each variety was performed by experts on the AM analysis of that specific variety and by their collaborators, if any; in the case of the few varieties that were not deeply analyzed previously, an expert in AM analysis was included in the group. The analysis was proposed on the basis of acoustical and perceptual criteria, i.e. by both inspecting F0 tracks and listening to examples for auditory evaluation. The final analysis of each variety was proposed after consultations internal to the group and even across groups. This variety-internal stage was followed by a detailed check of intra- and inter-variety consistency performed by the first author, on the basis of F0 track inspection and auditory evaluation of relevant examples and thanks to a consultation with all the coordinators of the single groups. All stages of the analysis were highly demanding, and the overall consistency check turned out to be extremely challenging. The main difficulties related, in some cases, to the scarcity of highly controlled material as for the segmental and prosodic composition (mainly in spontaneous sentences) and to the impossibility of objectively supporting some of the analysis by means of specific measurements, e.g. alignment and scaling; in other cases, the difficulty related to the existence of variety-internal choices, motivated by previous investigations and sometimes leading to inconsistent labeling. A few diacritics were introduced in transcription only to label phonologically contrasting differences (see, in particular, '>H*' and '<H*' to indicate H earlier and

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[9] Pseudo-randomization was obtained by means of permutation within and between blocks, applied on 5 lists of situation–response pairs.

later alignment, respectively, and '!H' and 'ïH' to signal H downstep and upstep, respectively). It is important to point out that, especially for some pragmatic types that were not previously investigated (e.g. imperative requests), the proposed description has to be confirmed by further analyses based on more controlled materials, in which segmental composition and prosodic structure may be explicitly chosen. Moreover, for some varieties the analysis of certain pragmatic types is not completed yet and is not considered here (details are offered below, for each sentence type). The guideline for the analysis of 'new' varieties or varieties in which a specific pattern was not systematically investigated was, and is suggested to be, that transcriptions should be internally motivated only if strictly necessary, and indeed they should be as consistent as possible with those proposed for other varieties; finally, they should be suggested together with an explicit statement on their motivation and with the purpose of performing specific experimental checks as soon as possible (as data from the corpus considered here usually do not include a sufficient variety of e.g. word stress patterns).

In the following section, we discuss nuclear contours that have been identified so far in the corpus, focusing attention on nuclear pitch accents and phrasal tones, and adopting a slightly modified definition of nuclear pitch accent in comparison with that proposed in Grice et al. (2005: 380). Grice et al. (2005) proposed defining the nuclear accent in Italian as "the rightmost fully-fledged pitch accent in the focused constituent". They correctly observed that a merely positional definition of nuclear pitch accent is problematic in Italian, since compressed and non-fully fledged pitch accents may follow a focused element within the same prosodic constituent. This is why they introduced the notion of fully-fledged pitch accent in the definition of the nuclear pitch accent.

Capitalizing on their proposal, we adopt here a slightly different definition: a nuclear pitch accent is the rightmost fully-fledged pitch accent within an intermediate or intonational phrase. Like that in Grice et al., this definition prevents postfocal pitch accents that may occur in a prosodic constituent after a focused element from qualifying as nuclear. Thus, in line with Grice et al., "Any following pitch accent or tone within the same intonational phrase (whether in a separate intermediate phrase or not) is henceforth referred to as 'postnuclear' or 'postfocal'." However, unlike the former definition, we are not forced to assume that any fully-fledged pitch accent occurring rightmost in a prosodic constituent expresses focus. For instance, clitic left-dislocated topics are independently phrased, and in these structures the rightmost word typically bears a fully-fledged pitch accent: according to our definition this accent qualifies as nuclear, although it does not occur in a focused constituent.

5.3 Intonation and phrasing

In this section we focus on various sentence types, reporting the analysis given for the varieties considered in this chapter (for audio files, see http://prosodia.upf.edu/iari; Prieto et al. 2010–14).

5.3.1 Statements

5.3.1.1 Broad-focus statements
For all varieties, the nuclear pattern found in broad-focus contexts is H+L* L%, in which the high leading tone realization is highly variable. In many cases and in basically all varieties, the H+L* pitch accent may be implemented as either a fall from a preceding high target or a fall from a preceding gradually falling stretch or from a plateau (see Fig. 5.2). In the literature on Italian, previous work that pointed out this type of variability in statements suggested the lack of related differences in meaning and the possible influence of the distance from a preceding peak accent and the scaling relation with it, for instance due to phrasing (e.g. Gili Fivela 2008). Thus, although various authors adopted specific labels to keep trace of these differences (e.g. (H+)L*, !H+L*, L*) in the case of broad focus the nuclear pattern is labelled as H+L* L%.

Notice that the lack of a clear high target should not be confused with the realization of an L* accent. Indeed, the existence of this pitch accent was motivated in work by Avesani and Bocci (e.g. Bocci and Avesani 2011; Bocci 2013). In particular, they show that in Florence and Siena Italian L* identifies postfocal speech material and does not mark the background of focus or informationally given material per se (e.g. if given information occurs prefocally, full flagged pitch accents do occur).

However, a high target may also be absolutely evident, to the extent that it may be particularly high in comparison to a regular high leading tone target. In some cases, the tonal composition of the utterance plays a major role in affecting the way the high leading tone is implemented; in other cases, it may be a matter of emphasis, as some investigations seem to suggest (e.g. the interpretation of a particularly high leading tone may be that of a possible correction in Pisa Italian; Gili Fivela 2006a). In other cases, however, the presence of a rise to a particularly high pretonic peak corresponds to specific phonological processes. For instance, in Pescara Italian, apart from a regular H+L*, in single word constituents a H+L* pitch accent showing a particularly high peak on the pretonic syllable is found. Such realization signals the presence of non-informational focus on single words and it is typical of the local vernacular, being transferred onto the variety of Italian. The pattern signaling prosodic focus on long constituents corresponds to a high sustained plateau, which is analyzed as due to a L+H* that signals the beginning of the plateau with H tone spreading to the right, and a final H+L* accent; on short, one word constituents, such pattern surfaces as a H+L* pitch accent showing a particularly high peak on the pretonic syllable, due to a merging effect of the Hs of the L+H* and the H+L* accents (§5.1.3; Barone in prep.; 'bibita' vs. 'cassa di mandorle' in Fig. 5.3).

Intonation in lists is quite uniform in the varieties of Italian, usually showing either H+L* or L+H* pitch accents on intermediate members, followed by either L% or
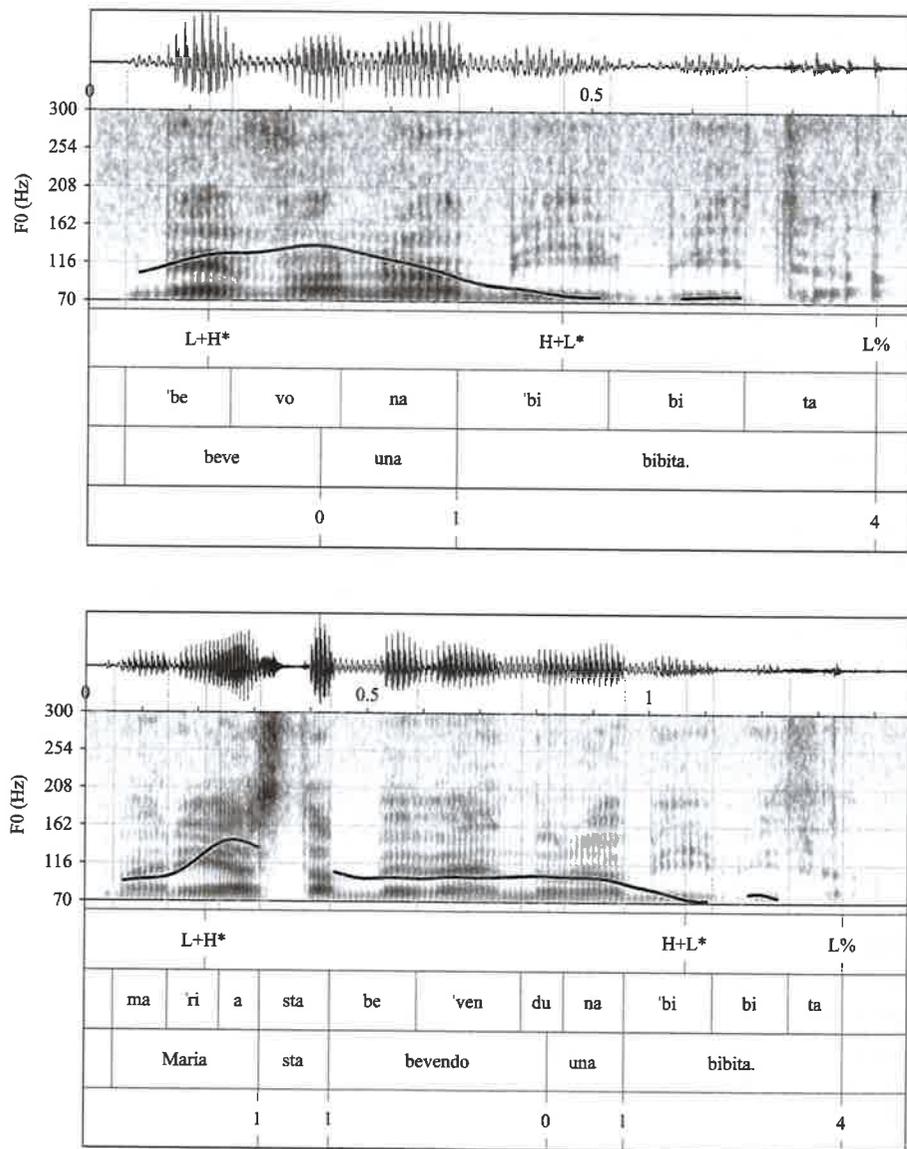
FIG. 5.2 Broad-focus statements *Beve una bibita* 'She has a drink' and *Maria sta bevendo una bibita* 'Maria is having a drink', speakers from Pisa
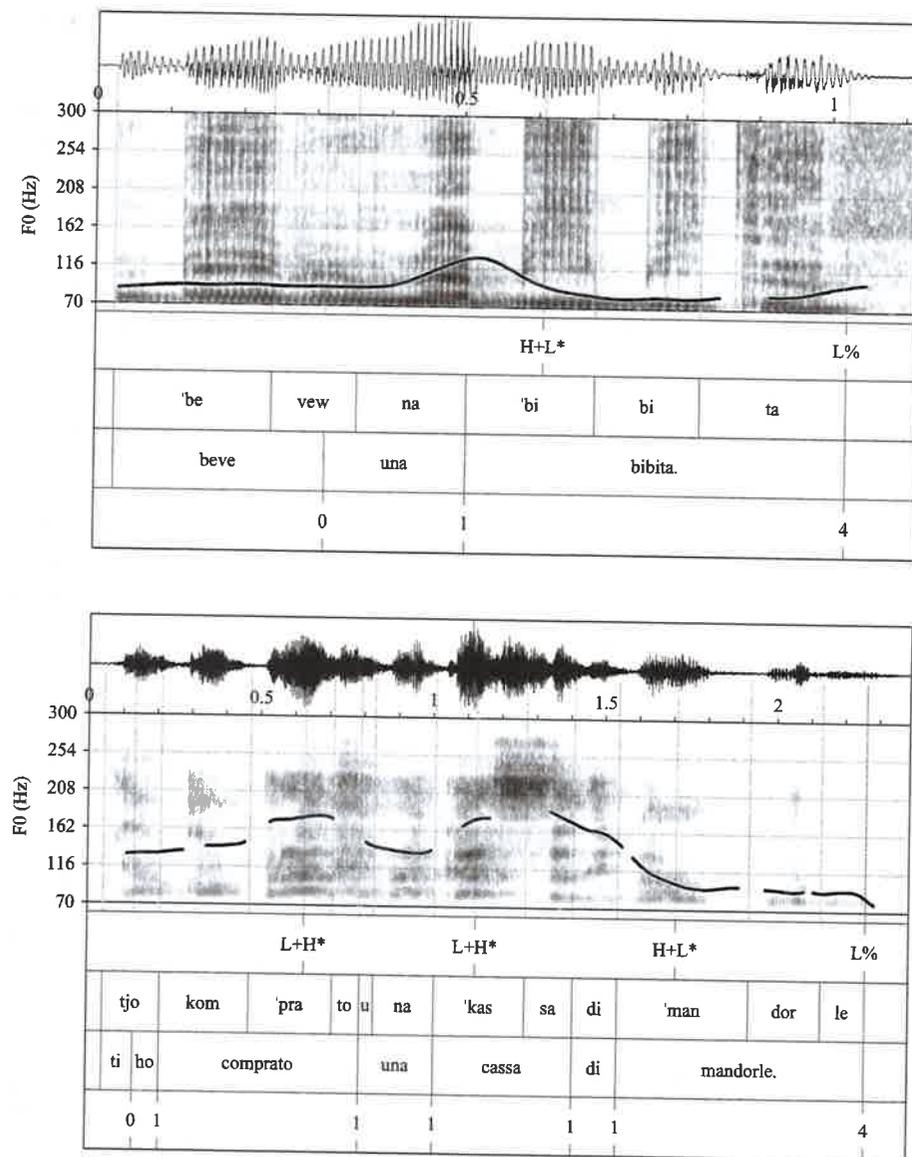

FIG. 5.3 Broad-focus statements *Beve una bibita* 'She has a drink' and *Ti ho comprato una cassa di mandorle* 'I bought you a box of almonds', speakers from Pescara

H%[10] (also L- or H-), L+H* on the penultimate item and a H+L* L% pattern on the final item.

5.3.1.2 Narrow-focus statements

In the corpus we refer to here, we could find very few examples of narrow focus indicating new information (e.g. presentational focus). However, the same nuclear pitch accents observed in broad-focus sentences may be found in these contexts, as happens both in Florence and Siena varieties where narrow new-information focus is realized with a nuclear H+L*.

On the other hand, most cases of narrow non-corrective focus found in the corpus could be good examples of contrastive focus, according to the mainstream of alternative semantics (Rooth 1996; Krifka 2006). Here too, focus in final position is usually realized with a H+L* L% pattern (where the H may show different scaling characteristics, as already mentioned, though in some varieties, e.g. Pescara, it is necessarily realized with a clearly high pretonic). However, in Florence and Siena the contrastive pattern is used,[11] and the same may also happen in Pisa (Fig. 5.4).

In most varieties, contrastive-corrective narrow focus—as also found in contradiction statements included in the survey—corresponds to either a L+H* L% (e.g. in Milan, Turin, Florence, Siena, Lucca, Naples, Salerno[12]) or a H*+L L% nuclear pattern (in Pisa, Rome, Pescara,[13] Bari, Cosenza, and Lecce: see Fig. 5.5).

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[10] In Pisa Italian it was observed that a different alignment of the starting of the final rise signals differences in speaker attitude and speech style. In particular, a sort of 'delayed rise'—resembling a final LH%—appears to more properly signal a 'planning in progress', which may be related to spontaneity and speech style, and may imply a request for greater attention to the information (being therefore related to illocutionary force variation); on the other hand, a more gradual rise in L +H* pitch accents, with an earlier rise starting point, appears to suggest boredom in the listing of items (Gili Fivela 2008).

[11] In Florence, H+H* is also attested, but just as an emphatic variant (Avesani and Vayra 2003; Bocci 2013).

[12] Some instances of contrastive-focus pattern in Salerno Italian are better described as H*+L L% than as L+H* L%. The phonetic difference between the two patterns seems to be related to the presence of an unclear low leading tone target and a final low target, that is aligned earlier in the syllable in the H*+L pitch accent. The pitch accent H*+L also occurs in information-seeking yes/no questions, in which it appears with H boosted and aligned earlier in the syllable than in L+H*. However, the existence of a phonological opposition between L+H* and H*+L in the phonological inventory of this variety is still a matter of debate. In case H*+L is confirmed in phonological terms, its phonetic characteristics represent an enrichment of the differences that can characterize the L+H* and H*+L opposition.

[13] In Pescara the most frequent realization is a high pretonic H*+L L%, which, like that observed in the broad-focus section for the high peak realization of H+L*, is due to a transfer from the local vernacular: on long constituents the typical pattern shows a high sustained plateau, which is analyzed as due to a L+H*, which signals the beginning of the plateau and whose H tone spreads to the right, and a final H*+L accent; on short, one-word constituents, such pattern surfaces as a H*+L pitch accent showing a particularly high peak on the pretonic syllable, due to a merging effect of the Hs of the L+H* and the H*+L.
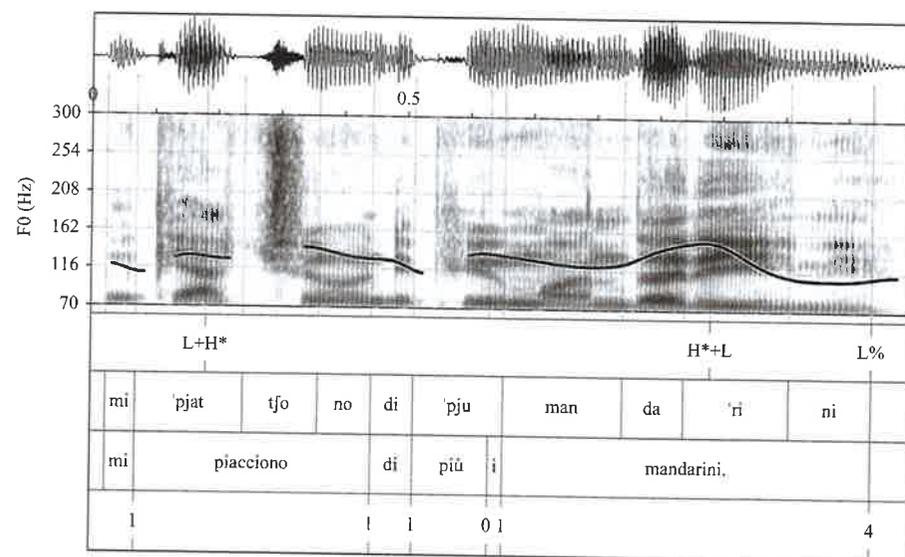

FIG. 5.4 Narrow-focus statement *Mi piacciono di più i mandarini* 'I like mandarins better', speaker from Pisa

The phonetic shape of the patterns appears to be very similar across varieties and shows a peak aligned approximately in the middle of the accented open syllable, around the first half of the vowel. Nevertheless, previous production and perception experiments motivated different phonological analyses, such as H*+L vs. L+H* (or H*). For instance, the analysis of read speech corpora of the variety spoken in Pisa, Florence, Siena, and Bari, involving accurate measurements of alignment of the low targets preceding and following the peak, suggested two different analyses of the second low target: in Florence and Siena the low target following the peak appears to move away from it, depending on the number of syllables available (Avesani 2003; Bocci 2013); in Pisa and Bari, however, the peak-to-low distance appears to be stable irrespective of the post-accentual material available (Gili Fivela 2002a; Gili Fivela and Savino 2003); consistently, in Florence and Siena Italian the F0 track appears to fall gradually within and after the syllable boundary, while in Pisa and Bari Italian the low target usually represents the end of a more clearly falling stretch within the syllable (Fig. 5.5, top vs. bottom, and Fig. 5.6). No systematic difference was found for the first low target. In fact, in Florence and Siena the rising part is considered to be phonologically pertinent and the pattern is analyzed as due to a rising accent showing an early peak position and to a following low phrase accent (the analysis of the whole pattern is L+H* L-); in Pisa and Bari the falling part is considered to be phonolo-gically pertinent and the final low target is analyzed as part of the pitch accent (i.e.

H*+L					L%
vor	'rej	dej	li	'mo	ni
vorrei		dei		limoni.	

Fig. 5.6 Contradiction statement *Vorrei dei limoni* 'I'd like to get lemons', speaker from Pisa

L+H*				H*+L		L%
vor	'rɛj	de	li	'mo		ni
vorrei		dei		limoni.		

H*+L accent which is still consistent with the presence of a phrase accent following the focus constituent, that may be independently motivated; Frascarelli 2000).[14]

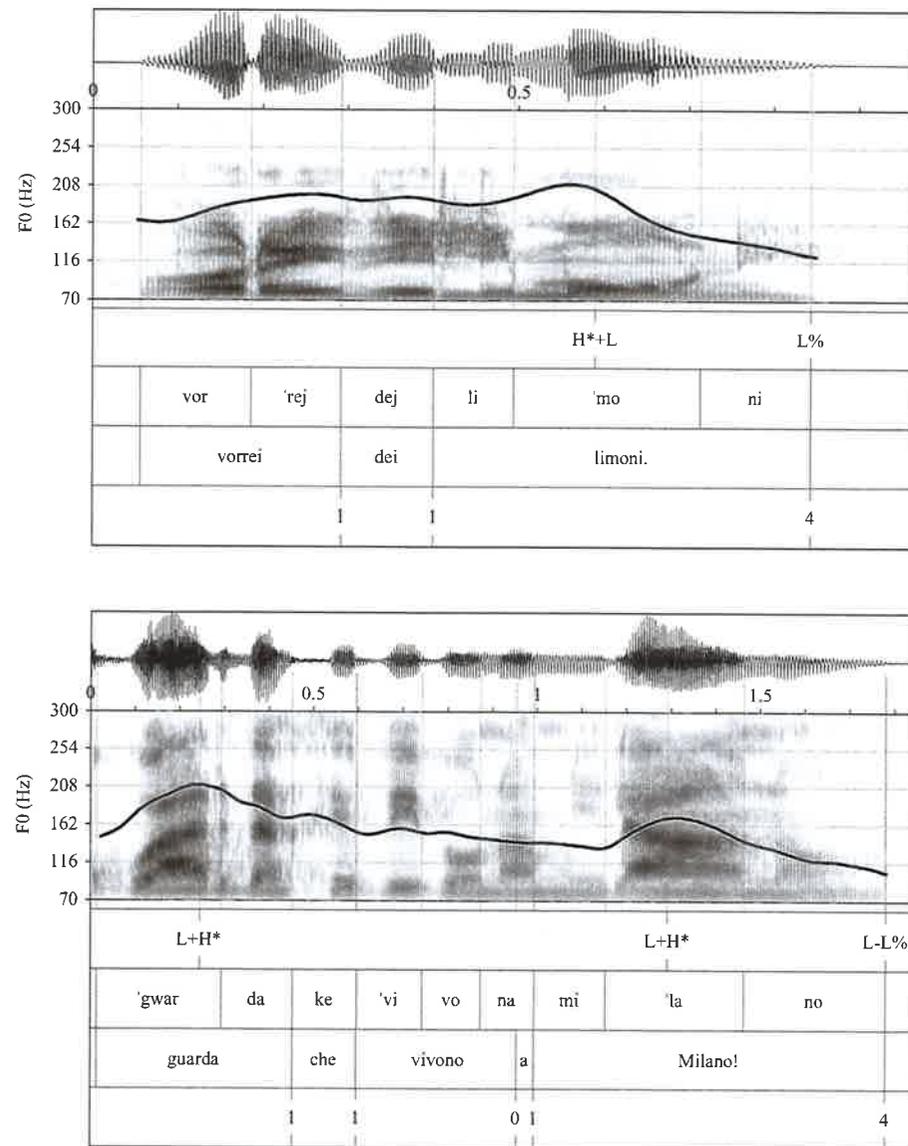| L+H*							L+H*		L-L%
'gwar	da	ke	'vi	vo	na	mi	'la	no	
guarda		che		vivono	a		Milano!		

Fig. 5.5 Contradiction statements *Vorrei dei limoni* 'I'd like to buy some lemons', speaker from Bari (H*+L, top), and *No, guarda che vivono a Milano* 'No, they live in Milan', speaker from Florence* (L+H*, bottom)
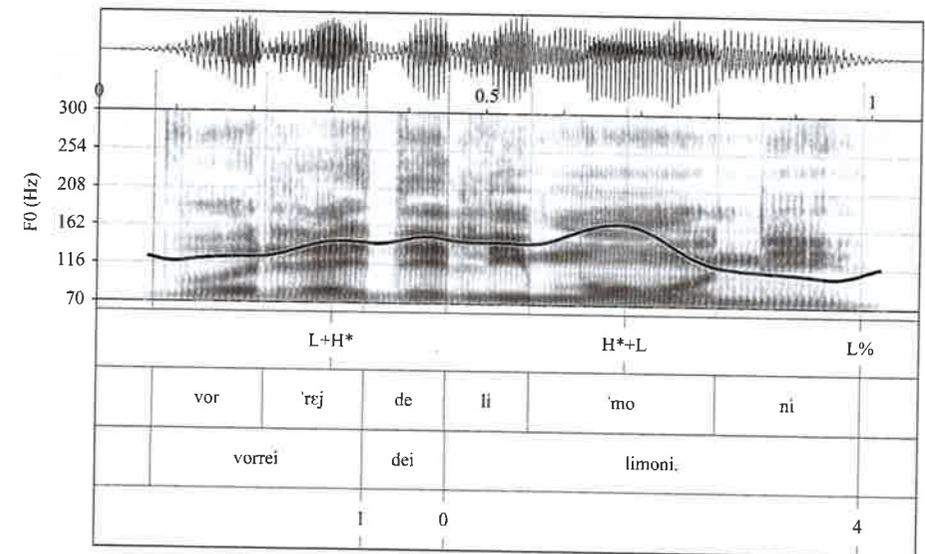
[14] As mentioned above, the pitch accents used to express contrastive-correction focus in the varieties of Italian usually show very similar alignment characteristics of the peak, early in the vowel. On the other hand, they differ as to the phonetic properties of the rising or falling part and, importantly, as to the part, rising or falling, that is considered pertinent to conveying the linguistic function and distinguishing the pitch accent from others in the system. It is probably not surprising, then, that speakers of different varieties interpret very similarly the pitch pattern expressing correction (see Gili Fivela 2013 for the description of a perception experiment involving speakers from Florence, Turin, Lecce, and Pisa, who judged a continuum of variation of alignment and scaling created to gradually shift from a Pisa Italian H*+L to a pitch accent showing a peak aligned by the end of the syllable). Given the similarity in the peak alignment and in the perception of speakers of different varieties, we are currently evaluating the possibility of exploiting, on the one hand, one specific label to describe the main common feature found across variety (i.e. the peak alignment early in the vowel) and, on the other, keeping different labels for single-variety description that make clear whether it is the rising or the falling that is pertinent in the variety system. In particular, the specific label would code the presence of an H* tone which is secondarily associated, as proposed by (Prieto et al. 2005). As proposed for Pisa and Neapolitan Italian, in the case of the contrastive correction patterns the H* is taken to be possibly associated to the first mora of a syllable that is bimoraic due to lengthening associated with contrastive-correction focus. This analysis permits both an on-ramp and an off-ramp analysis (i.e. H*]μ is consistent with both L+H*]μ and H*]μ+L), but it would also (i) account for the fact that the peak is retracted within the vowel in both H*+L and L+H* cases (i.e. H*]μ is a shared feature) and (ii) make a label available to be used in case there is no clear idea yet on the on-ramp vs. off-ramp phonological analysis of the pitch accent in the case of new varieties in which, however, it is clear that early peak alignment and syllable lengthening is found (e.g. H*]μ could be adopted also as a preliminary label). Such a proposal is under evaluation: it remains to be checked whether lengthening always affects syllables bearing contrastive-correction focus, as shown for Pisa and Lecce (Gili Fivela 2002a; 2008; Vanrell et al. 2011), and further data on perception would also shed light on the issue. Notice that this analysis also implies that L+H* in, say, its unmarked form shows a rise through the syllable, periodically.

Moreover, both across and within varieties it is possible to find different realizations of the same pattern. For instance, the same analysis is given for the H*+L pitch accent in Pisa and Rome Italian, but while some realizations of it may be found in both (e.g. no clear rise is found and the peak resembles rather the end of a sort of plateau), some appear to be more often found in one variety than in another (e.g. a less steep rise, starting even earlier than the pretonic syllable, is more often found in Rome; see also, in relation to questions, Giordano 2006; 2011). However, detailed measurements and analyses have not been equally carried out for all varieties, and in some cases a particular analysis has been chosen after auditory and F0 inspection of a number of examples—not necessarily after systematic phonetic and phonological investigations.

Finally, a second option to realize contrastive-correction focus is the use of a regular broad-focus pattern H+L* L%, which in this corpus was found only for some varieties (esp. Milan, Lucca, Naples, Salerno and Pescara, where the high pretonic H+L* is found—see §§5.1.3 and 5.3.1.1), and which probably represents a less marked choice to express a contradiction.

5.3.2 Exclamatives

In some varieties, exclamatives may be realized with an L*+>H L% nuclear pattern (Fig. 5.7, top). This is the case, for instance, in Milan, Lucca, Rome, Lecce, and Turin, where these realizations sound slightly emphatic, although perfectly usual (for confirmation of the existence of both L*+>H and L*+H in Turin Italian, see Gili Fivela et al. in press; a few examples are also observed in Pescara Italian, though their provisional analysis is L*+H).[15]

Concerning exclamatives, the L*+>H L% option usually alternates with others that represent the pattern found in other varieties. In particular, an L+H* L% nuclear pattern is found in Turin (Fig. 5.7, bottom), Florence, and Siena; a H*+L L% is observed in Pisa, Lucca, Rome, Salerno, Lecce, and Pescara (where it is mainly realized as a vernacular-like high pretonic H*+L, a H*+L showing a particularly high peak on the pretonic syllable, or a preceding high sustained plateau; see §§5.3.1.2 and 5.1.3); while a H* L% is found in Cosenza. Exclamative contours offer a first example of the existence of both H* and L+H* in the inventory of at least some of the varieties of Italian, as in Cosenza Italian H* is the nuclear pitch accent in exclamatives while L+H* is instead found in polar questions (Sorianello 2011). Finally, in Lucca the most common pattern in the corpus considered here is a broad-focus
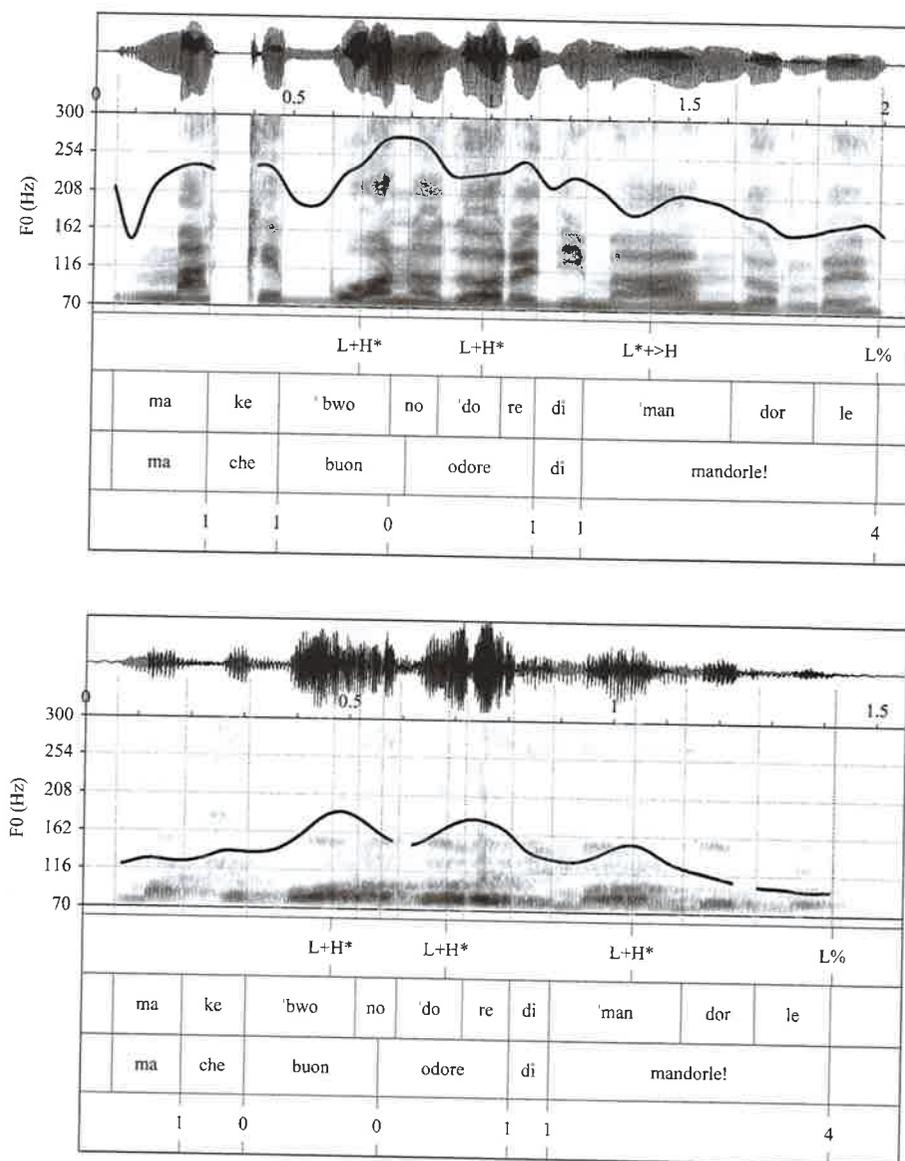
FIG. 5.7 Exclamatives *Ma che buon odore di mandorle!* 'What a good smell of almonds!', speaker from Turin: L*+>H L% (top) and L+H* L% realization (bottom)

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reported in many varieties of Italian and Romance languages. This choice is embraced here as it also allows us to differentiate between L+H* (found to align late in the syllable and to contrast with H*+L in some varieties) and L+<H* (often found in prenuclear position and aligning in the posttonic or later).

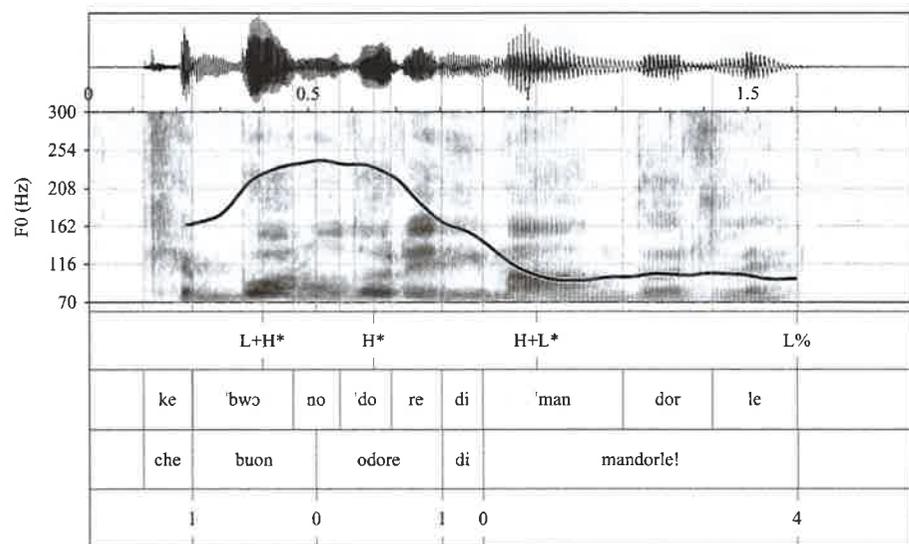[15] No analysis of exclamatives is available for Naples and Bari.

FIG. 5.8 Exclamative *Che buon odore di mandorle!* 'What a good smell of almonds!', speaker from Lucca

pattern, realized with a wide pitch range—Fig. 5.8 (in Salerno, Lecce, and Milan the H+L* L% nuclear pattern is an option too).

However, a pitch range globally wider than usual is a widespread characteristic. Indeed, it is still a matter of debate if an initial %H boundary tone could be appropriate to describe it, as it was proposed in the past for the high onset found in Florence Italian (Avesani 1995; Grice et al. 2005) and more recently for Bari and Cosenza Italian (Sorianello 2010; 2011; 2012).

5.3.3 Yes/no questions

As far as yes/no questions are concerned, first, it is important to point out that there is a strong inter-variety variation in the pattern used to express them; secondly, in most varieties more than one pattern may play a specific sub-function, possibly also in relation to differences in focus scope or stylistic choices (discussion in §5.3.7); the most direct consequence is that one pattern is often common to many sub-functions (e.g. information-seeking, confirmation-seeking, and echo).

In Lecce Italian, for example, the H+L* LH% pattern is used for information-seeking, confirmation-seeking, and echo questions (Fig. 5.9).

5.3.3.1 Information-seeking yes/no questions

The table and stylized examples in Fig 5.10 offer an overview of the patterns used across varieties in information-seeking
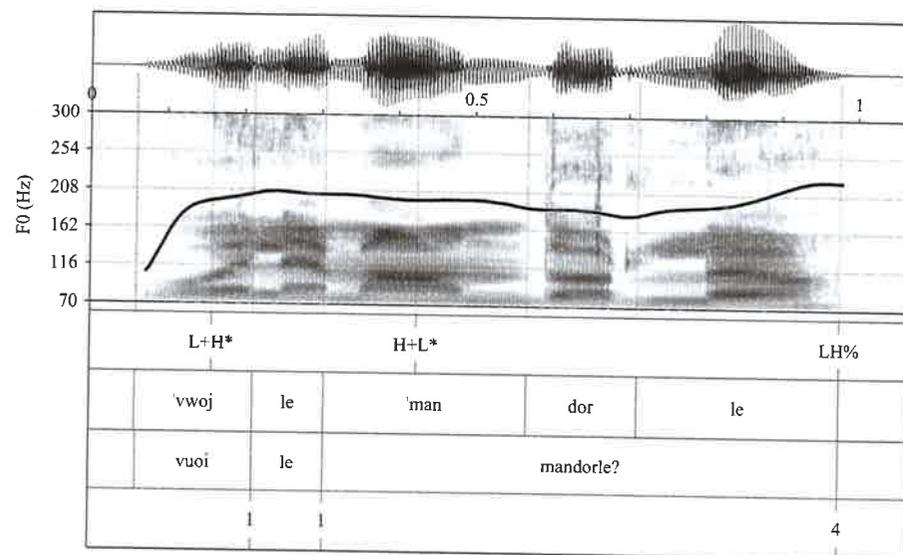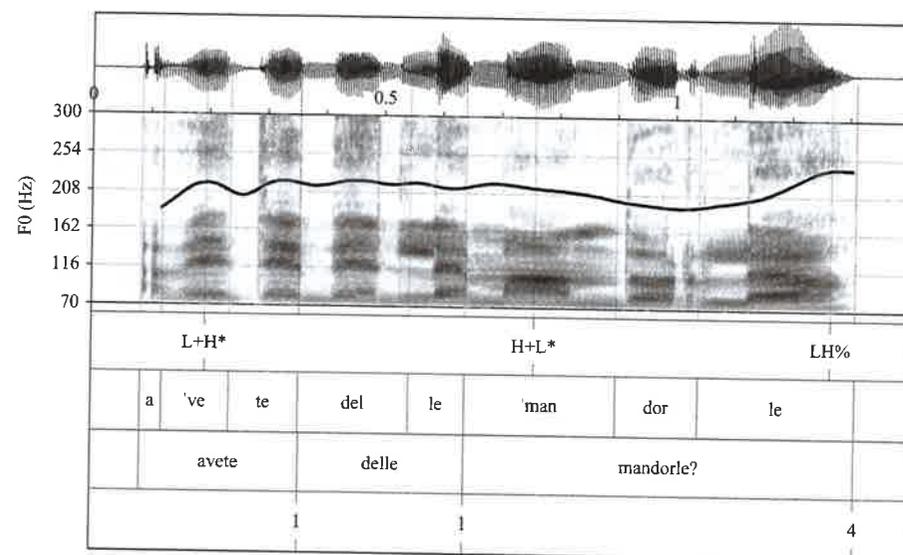

FIG. 5.9 Information-seeking yes/no question *Avete delle mandorle?* 'Do you have almonds?' (top), confirmation-seeking question *Vuoi le mandorle?* 'Do you want almonds?' (mid), and echo question *Sono le nove?* 'Is it nine o'clock?' (bottom), speakers from Lecce
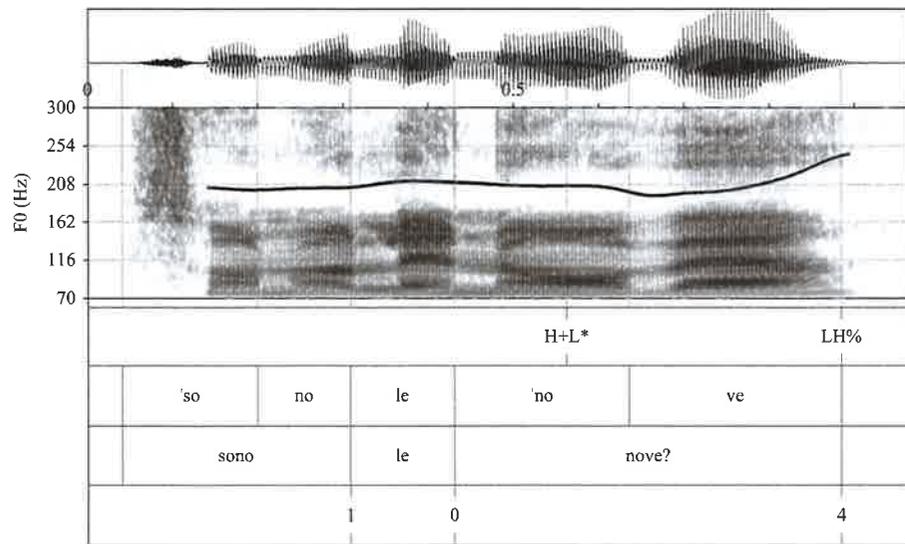
FIG. 5.9 Continued

FIG. 5.10 Information-seeking yes/no questions: transcription of nuclear patterns found in the varieties of Italian (left table) and their stylization (right schemes); motives indicate possible groupings on the basis of nuclear tunes; varieties are represented by abbreviations: Milan (MI), Turin (TO), Florence (FI), Siena (SI), Pisa (PI), Lucca (LU), Rome (RO), Pescara (PE), Naples (NA), Salerno (SA), Cosenza (CS), Bari (BA), and Lecce (LE)

yes/no questions.[16] The first very obvious observation is that there are no differences pointing to the existence of homogenous or heterogeneous patterns that may be grouped depending on macro-areas that are traditionally identified on the basis of non-prosodic features (e.g. Northern vs. Central vs. Southern varieties; see also Savino 2009; 2012). Indeed, apart from a few cases, varieties from very distant and different areas may show the same phonological pattern (e.g. H+L* LH% is one of the patterns in Milan, a Northern variety, and Lecce, in the extreme South).

Along similar lines, grouping patterns on the basis of the shape of nuclear contours, it is clear that similar shapes are also found in varieties spoken in very different areas of Italy. For instance, in various parts of Italy a nuclear pattern composed of falling pitch accents followed by a final rising pitch is used (e.g. in Milan, Turin, Pisa, Lucca, Rome, Pescara, Salerno, Cosenza, and Lecce; Fig. 5.10,

upper left-cells in table and upper scheme to the right), or, to take another example, very different varieties show a pattern composed of rising pitch accents and final falling pitch (e.g. Turin, Naples, Salerno, Cosenza, and Bari; Fig. 5.10, lower right-cells in table and lower scheme to the right).

In the previous section, some examples of information-seeking yes/no questions were offered, among those involving falling-rising patterns (H+L* LH%—Fig. 5.9; notice that H*+L LH% may be found in many varieties, and in Pescara H*+L is mainly realized as a vernacular-like high pretonic H*+L; see also fn.13, and §5.3.2). Examples of rising-falling-rising and rising-falling patterns are given in Figs 5.11 and 5.12, where a L+H* LH% and a L+H* L% are reported for Bari (Fig. 5.11) and Salerno (Fig. 5.12, bottom), respectively, although the typical contour in the former variety also shows a low boundary tone, as clearly found in Map Task dialogues. These contours, together with that found in Florence, reported in Fig. 5.12 (top), show again the existence of both H* and L+H* within the phonological systems of some varieties of Italian. For instance, in Bari Italian the dip preceding the H* has been proved perceptually crucial for identifying a yes/no question (L+H*) as opposed to a command (H*) (Grice and Savino 1995) and clear instances of H* is reported.

[16] The patterns reported in Fig. 5.10 are not always identical to those found in previous investigations, relying on data elicited with different methods, such as Map Task dialogues. One example is the final rising pattern found in Bari Italian, found here in a spontaneous setting but corresponding to the typical read speech pattern (discussion in §5.3.7). A possibly similar observation relates to the presence of final LH% edge tones combination in Rome, while previous investigations reported LL% endings (see Savino 2012, who moreover analyzed the pitch accent as L+H* rather than H*+L: discussion in §5.3.7). Another example is represented by the H*+L LH% nuclear contours found here in Lecce and Pisa. In these varieties, the H*+L pitch accent was found in confirmation-seeking rather than in information-seeking questions (Gili Fivela 2008; Stella and Gili Fivela 2009). The difference is taken, again, to depend on the elicitation method, probably inducing in the speakers different types of assumption concerning the knowledge shared by the possible interlocutor. Elliptic questions are not considered here.

FIG. 5.11 Yes/no question *Avete delle mandorle?* 'Do you have almonds?', speaker from Bari

FIG. 5.12 Information-seeking question *Avete dei mandarini?* 'Do you have mandarins?', speakers from Florence (top) and Salerno (bottom)

and L+H* in narrow contrastive focus are found in both Florence and Siena Italian (where the alignment of the H tone, the presence of a clearly defined L target in the rising accent of narrow-contrastive focus statements, and the scaling of the H target support the existence of two phonologically distinct pitch accents). To offer other examples, in Neapolitan H* was chosen on the basis of detailed consideration of scaling (for instance due to the observation of no steep rises) for describing the postfocal H* (also reported as !H*) found in yes/no questions (Grice et al. 2005), and, as already mentioned, in Cosenza Italian L+H* is found in polar questions while H* is the nuclear pitch accent in exclamatives (Sorianello 2011).

As for rising–falling patterns, Fig. 5.13 shows other examples relating to the L*+H HL% nuclear combination for the varieties spoken in Turin and Naples. As i is clear from Fig. 5.13, there is a strong phonetic difference in the realization of the L*+H accent in these two varieties (Fig. 5.14). Indeed, while in Turin Italian a gradual fall to the nuclear syllable and a F0 rise in the second half of it, peaking by the end of the syllable, is visible (Fig. 5.13; for confirmation of the presence of both a high trailing tone and a high boundary tone in perception, Gili Fivela et al. in press), in Neapolitan Italian the syllable is in fact rising. Indeed, the choice of the label in Neapolitan Italian, which is maintained here, stemmed from variety-internal phonological considerations that cause a certain degree of inconsistency in the cross-variety transcription. As already mentioned above, in Neapolitan the L*+H label was assigned to the pitch accents found in yes/no-questions after obtaining phonetic evidence for the suitability of L+H* as a label for narrowly focused constituents in declaratives (D'Imperio 1999).
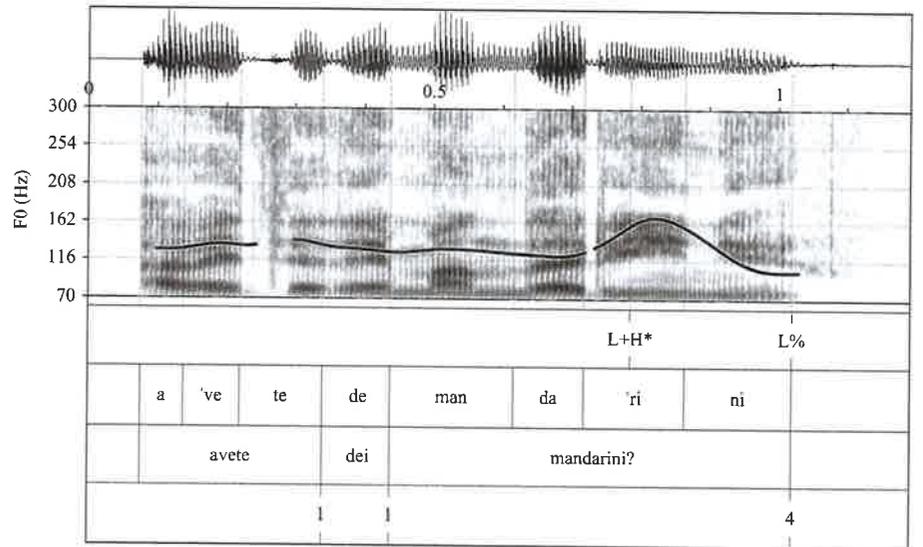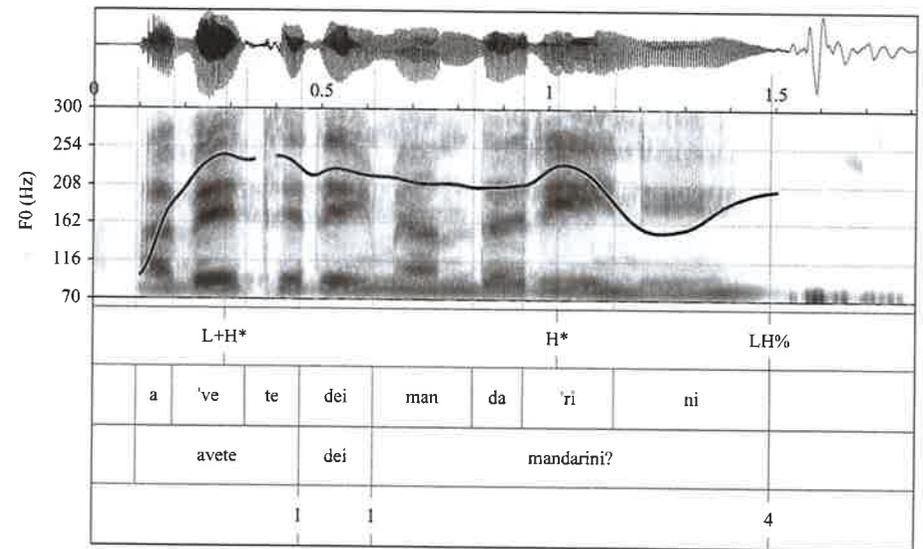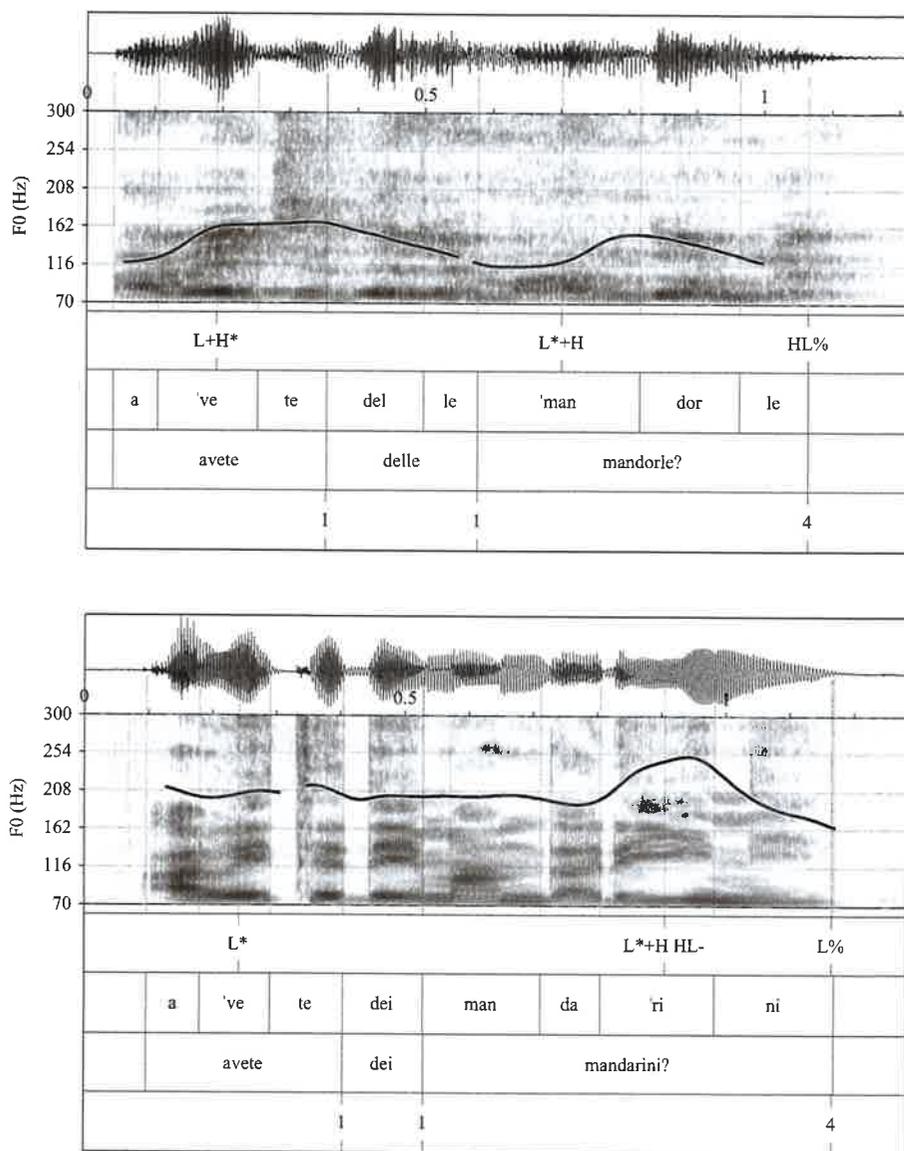
FIG. 5.13 Information-seeking question *Avete delle mandorle?* 'Do you have almonds?', speaker from Turin (top) and *Avete dei mandarini?* 'Do you have mandarins?', speaker from Naples (bottom)
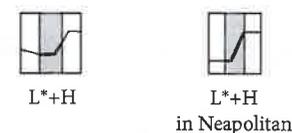
FIG. 5.14 Schemes of phonetic form of L*+H pitch accent (left) and the L*+H pitch accent found in Neapolitan Italian (right)
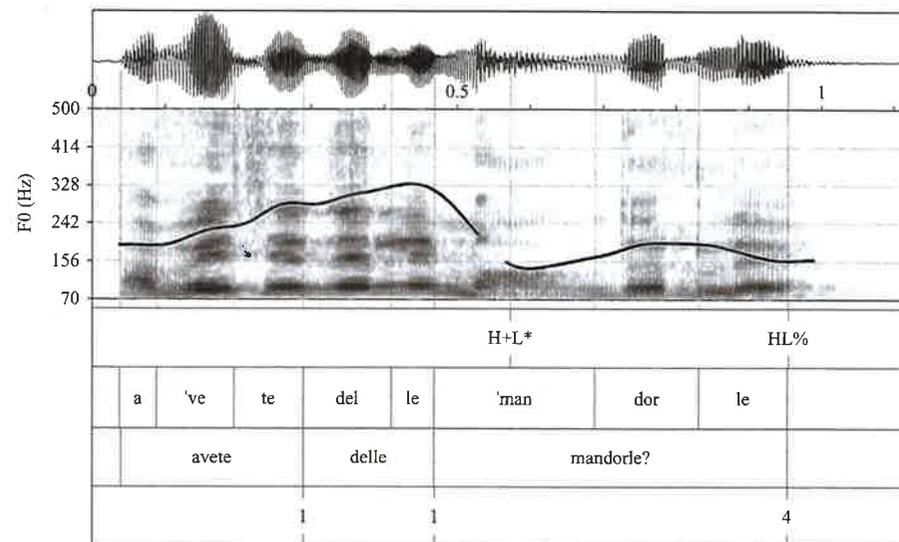
FIG. 5.15 Information-seeking question *Avete delle mandorle?* 'Do you have almonds?', speaker from Lucca

The Neapolitan example also gives us a chance to observe the existence of the HL- phrase accent and the L* prefocal/prenuclear pitch accent (usually found in empty subject yes/no questions or in wh-questions with early focus).

Finally, an example of falling–rising-falling pattern (H+L* HL%) is offered in Fig. 5.15 and relates to the varieties spoken in Lucca.

5.3.3.2 *Echo yes/no questions*   In many varieties, echo yes/no questions are phonologically realized as regular yes/no information-seeking-questions (Fig. 5.9), although extra patterns in comparison with information-seeking-questions may also be found.[17] For instance, Lucca shows a L+¡H* LH% pattern that is used for echos and has not been found for information-seeking questions (Fig. 5.16), and Pescara shows a H*+L L% pattern, which is often found in confirmation-seeking questions.

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[17] No analysis available for Naples and Bari.

FIG. 5.16   Continued

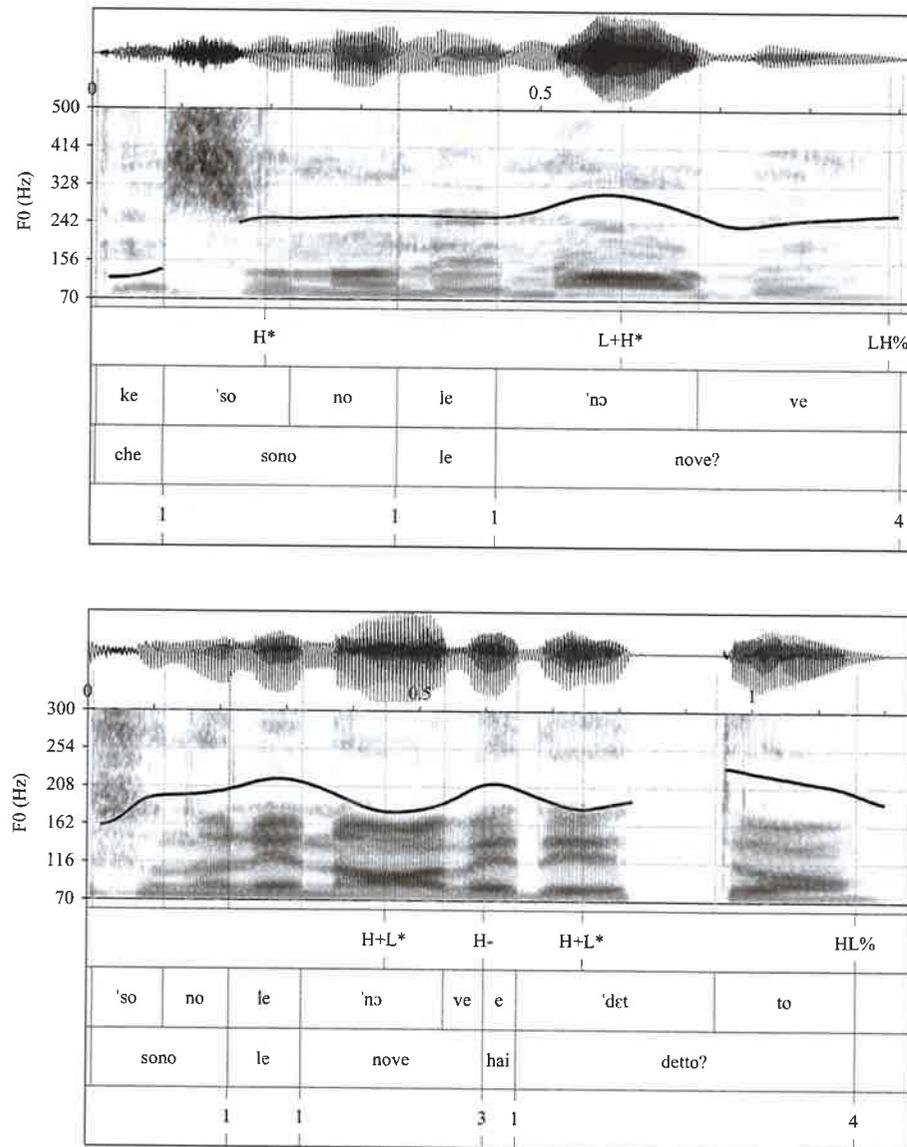FIG. 5.16   Echo question *Che sono le nove?* 'That it's nine o'clock?', speaker from Cosenza (top), *Sono le nove, hai detto?* 'It is nine o'clock, is that what you said?', speaker from Pisa (mid), and *Hai detto che sono le nove?* 'Did you say it is nine o'clock?', speaker from Lucca (bottom)
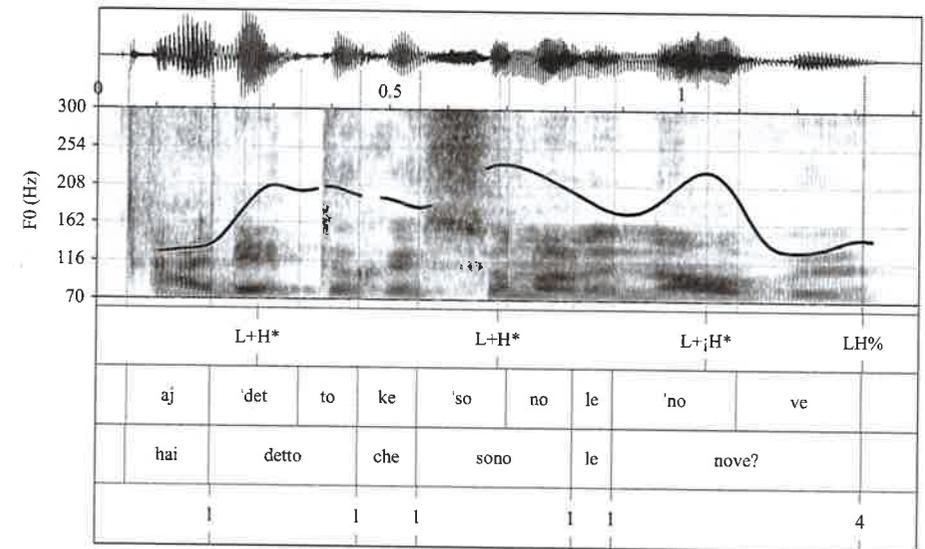
On the other hand, it may also be the case that only a subset of the patterns observed for information-seeking yes/no questions are used in echo questions too. In particular, in Cosenza Italian L+H* LH% pattern is the only one used for echos, though it usually shows a greater pitch excursion; in Milan it is the H+L* LH% that is used for echos, in Salerno there are two patterns, L+H* L% and L+H* LH%, and in Lucca the pattern used for both functions is H+L* HL% (this pattern is found together with L+¡H* LH%, that is not found for information-seeking questions).

Apart from these observations, for the varieties in which echo questions have been analyzed, the other patterns reported in table in Fig. 5.10 are also found.

Incredulity and counterexpectational yes/no questions in most varieties are realized with the same phonological pattern found in echo yes/no questions, although the phonetic implementation may actually imply slight differences in segmental lengthening, tonal alignment, and scaling. In Pisa Italian, for instance, the target syllable in an incredulity-question (Fig. 5.17, bottom) may be particularly long in comparison with the syllable in an echo question (Fig. 5.17, top) and the peak may be aligned slightly later. To give another example, in Salerno possible patterns involve both H*+L L% and L+H* L% and the pitch range may either be globally wider or narrower, with the latter conveying an even greater incredulity level. In Bari Italian, consistently, the presence of a high peak in the rising L+H* pitch accent was found to be significant in distinguishing polar questions expressing incredulity and challenging an interlocutor's assumption that
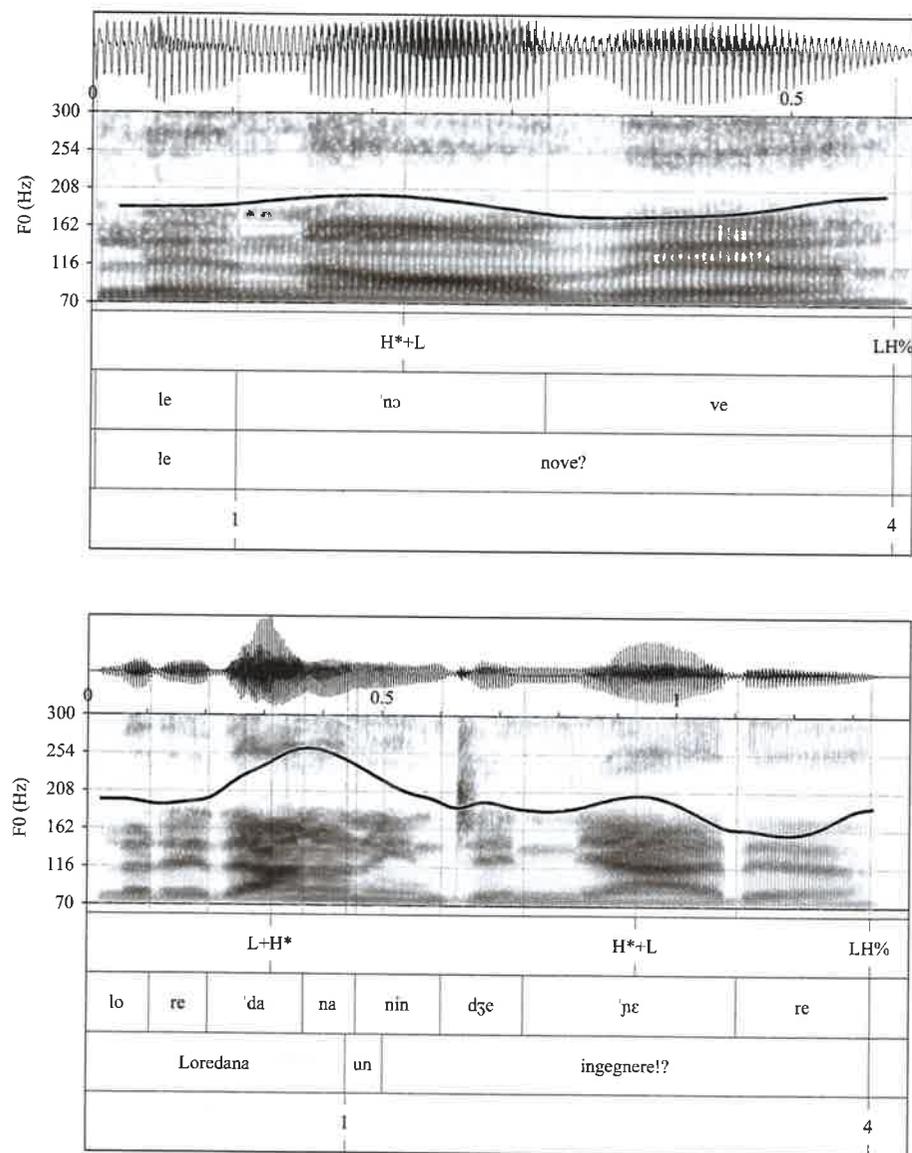
FIG. 5.17 Echo question *Le nove?* 'Is it nine o'clock?', speaker from Pisa (H*+L, top) and incredulity-question *Loredana un ingegnere!?* 'Loredana an engineer!?', speaker from Pisa (H*+L, bottom)

information is given (object moves; Grice and Savino 2003), and information-seeking yes/no questions (Savino and Grice 2007; 2011).[18]

However, specific patterns are found in other varieties too, such as in Florence (H+L* and L*+H LH%), Cosenza (H*+L L% or H% and L+H* L%), Pescara (L*+H L% and H*+L L%, characterized by a high pretonic H*+L due to transfer from the vernacular—see also fn. 13, and §5.3.2), and Lecce (where a L*+H or L+H*, with a particularly delayed leading tone, L!H% takes place). On the other hand, some varieties lack patterns found in echo questions (e.g. in Lucca there is no H*+L L%, and in Salerno no H+L* LH% and L+H* LH%).

5.3.3.3 Confirmation-seeking yes/no questions For confirmation-seeking polar-questions it is again possible to use the same pattern observed in information-seeking (Fig. 5.9). In a few cases, only some of the patterns observed for information-seeking yes/no questions are used. For instance, both in Lucca and Cosenza Italian there is no H+L* LH% in confirmation-seeking questions; similarly, in Salerno, only the L+H* L% and L+H* LH% patterns are found to express both functions.

A quite common pattern used for confirmation-seeking is the contrastive focus pattern. For instance, in the varieties spoken in Lucca, Pisa, Cosenza, Pescara, Bari, and Lecce, confirmation-seeking questions may be realized with a H*+L pitch accent followed by low edge tones (L% in Lucca, Cosenza, Pescara, Bari, Lecce, and Pisa) or followed by low-high edge tones pattern (LH% in Pescara, Cosenza, Pisa and Lecce; the latter two show only the LH% edge tone combination in the corpus analyzed here—Fig. 5.18—although a final low tone is often found in others; Stella and Gili Fivela 2009). Notice that in Bari Italian Map Task dialogues, in particular, the contrastive narrow focus pattern, H*+L L%, is found in confirmation-seeking questions produced when speakers are confident that information is shared (i.e. in "confident checks" as opposed to "tentative checks," realized with the information-seeking pattern, L+H* L%, and to "very confident checks," realized with the broad-focus H+L* L% pattern; Grice and Savino 1997; 2003; 2004; Savino 1997; 2000). To give another example, in Pisa Italian the H*+L pitch accent was found with different edge tone combinations depending on the speaker role in Map Task dialogues and on the related presupposition of knowledge (L% is used by followers, owning the lowest level of information in Map Task, and LH% by givers; Gili Fivela 2008).

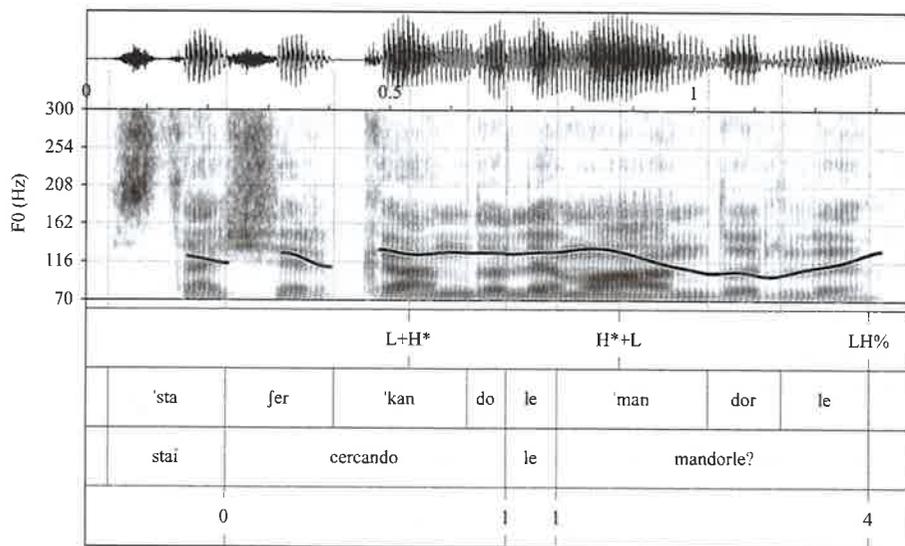Apart from these remarks, the other patterns reported for information-seeking in Fig. 5.10 may be used for confirmation-seeking.

FIG. 5.18 Confirmation-seeking questions *Stai cercando le mandorle?* 'Are you looking for almonds?', speaker from Pisa

5.3.4 Wh-questions

A strong inter-variety variation is also observed in the patterns used for information-seeking wh-questions. In many varieties, the nuclear pitch accent may be H+L* and the phonological differentiation from statement intonation is eventually due to edge tone choices. However, there are often other options available to speakers for realizing wh-questions that may then correspond to different patterns even within the same variety. On the other hand, a very low inter-variety variation is found in the realization of incredulity and counterexpectational wh-questions.

5.3.4.1 Information-seeking wh-questions   The table and stylized examples in Fig. 5.19 offer an overview of the patterns used across varieties in information-seeking wh-questions.[19] As already observed, in many varieties the nuclear pitch accent is H+L* and the phonological differentiation from the nuclear pattern of statements is only due to edge tone choices. Another general observation is that no nuclear H*+L or H* has been attested so far for expressing this function.

[19] No highly stereotypical questions (e.g. *che ora è?* 'what time is it?') belonging to the corpus were considered, as their intonation contour is indeed stereotypical and is not considered as representative of wh-questions as a whole. Some patterns appear to be less represented in the corpus, but are reported here for completeness. This is the case of Cosenza H+L* LH% and Salerno L*+H H%, the latter sounding more read speech-like.

FIG. 5.19 Information-seeking wh-questions: transcription of nuclear patterns found in the varieties of Italian (left table) and their stylization (right schemes); motives represent possible groupings on the basis of nuclear tunes; varieties are represented by abbreviations: Milan (MI), Turin (TO), Florence (FI), Siena (SI), Pisa (PI), Lucca (LU), Rome (RO), Pescara (PE), Naples (NA), Cosenza (CS), Salerno (SA), Bari (BA) and Lecce (LE)

As mentioned for statements, it is quite usual to observe a strong phonetic variation in H+L* realizations. However, in the case of questions it is still a matter of debate whether there are global pitch range or register differences in comparison with statements (Gili Fivela 2008) and if, at least for some varieties, these differences could affect the realization of the H+L* pitch accent too in the wh-question modality vs. the statement one (depending also on the pattern and prominence relations between the nuclear pattern and the pitch pattern on the wh-word).

In the H+L* L% pattern the high leading tone is usually clearly identified. However there are productions in which the high leading tone seems to be boosted, depending on specific pragmatic meanings. Indeed, the pitch accent may show a clearly high leading tone target that seems to be related to a specific meaning or speaker attitude, such as curiosity to know the answer not being able to imagine it (examples found in Lecce, Fig. 5.20, and Lucca).[20] A similar variation is also found with different edge

[20] For Lucca, the LH% vs. H% analysis is still provisional, as the edge tone combination has not been confirmed yet on words with antepenultimate stress.
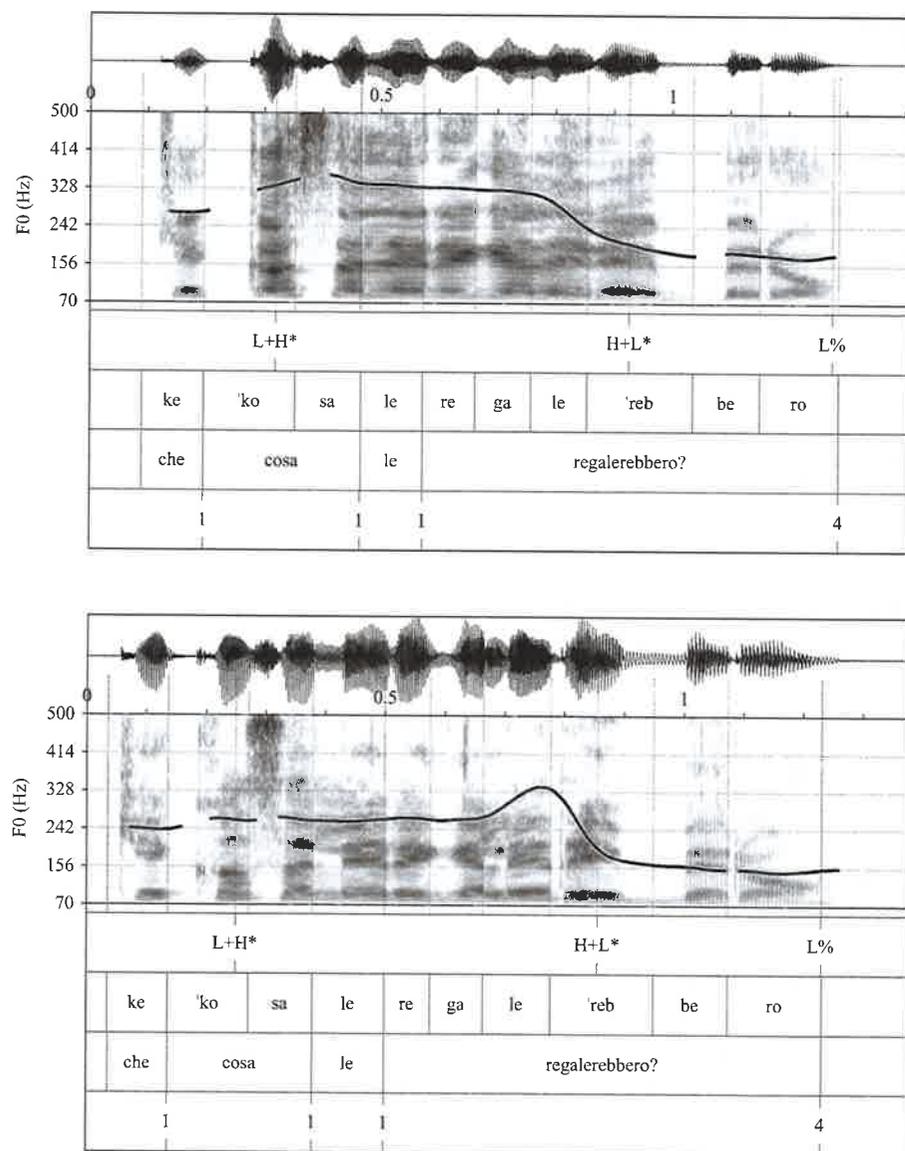
FIG. 5.20 Wh-question *Che cosa le regalerebbero?* 'What would they gift her?', speaker from Lecce

tone combinations, such as LH%, as the nuclear pattern may show a final rise and is cross-variety analyzed as H+L* LH%. However, in Milan the boosting appears to be a variety-specific feature; the same holds true in Pescara (where, however, the most frequent pattern involves L*+H and where the boosting in H+L* is related to the influence of the local vernacular: see §§5.1.3 and 5.3.1.1).

Among the other patterns found in information-seeking wh-questions, rising pitch accents followed by different combinations of edge tones are found (see Fig. 5.21).

5.3.4.2 Echo wh-questions   Echo wh-questions basically show the same contour as echo yes/no questions (§5.3.3.2).[21] On the other hand, specific contours are found in incredulity and counterexpectational wh-questions. In most varieties, they are realized producing an L+¡H* H% pattern (e.g. in Milan, Turin, Florence, Siena, Pisa, Lucca, Rome, Salerno, Pescara, and Cosenza).[22] Indeed, a relevant feature is the wide pitch excursion that characterizes the pitch accent (see Fig. 5.22 for an incredulity question and compare it with the information-seeking question produced by the same Roman speaker and reported in Fig. 5.21, top).

Apart from the L+¡H* H% pattern, in Lecce, Salerno, and Pescara incredulity and counterexpectational questions may also be realized by means of low edge tones, i.e. L+¡H* L%; Fig. 5.23.

Disjunctive questions also show a quite regular pattern through varieties of Italian. They are usually realized thanks to an L+H* pitch accent (eventually followed by H or L edge tones) and a H+L* final pitch accent followed by L% or H% edge tones (although in some varieties the final edge tones are LH%, e.g. in Rome, and in some varieties L*+H is also found on the last item, e.g. in Pescara).

5.3.5 Imperatives: commands and requests

5.3.5.1 Commands   Commands are often realized by means of a falling pattern that is analyzed cross-variety as H+L* L% (Fig. 5.24, top). Indeed, this is the pattern found in the varieties spoken in Milan, Turin, Florence, Siena, Lucca, Pisa, Rome, Salerno, Pescara (where the high pretonic H+L* is found: see §§5.1.3 and 5.3.1.1), and Lecce.[23] In some varieties, other patterns are found to express commands (e.g. Cosenza) or they are found as alternatives to the one mentioned above, mainly in the case of commands that sound particularly emphatic (e.g. varieties of Turin and Lecce). In the latter cases, the pattern is analyzed as involving a contrastive pitch accent (e.g. L+H* L% in Turin, Fig. 5.24, bottom, and H*+L L% in Cosenza, Lecce, and Pescara,

[21] No analysis available for Naples and Bari.
[22] In all the varieties analyzed so far, the pitch excursion clearly differentiates incredulity and counter-expectational wh-questions from information-seeking wh-questions. However, further experimental work is needed in order to check whether the pitch range difference is significant in distinguishing the two types of question.
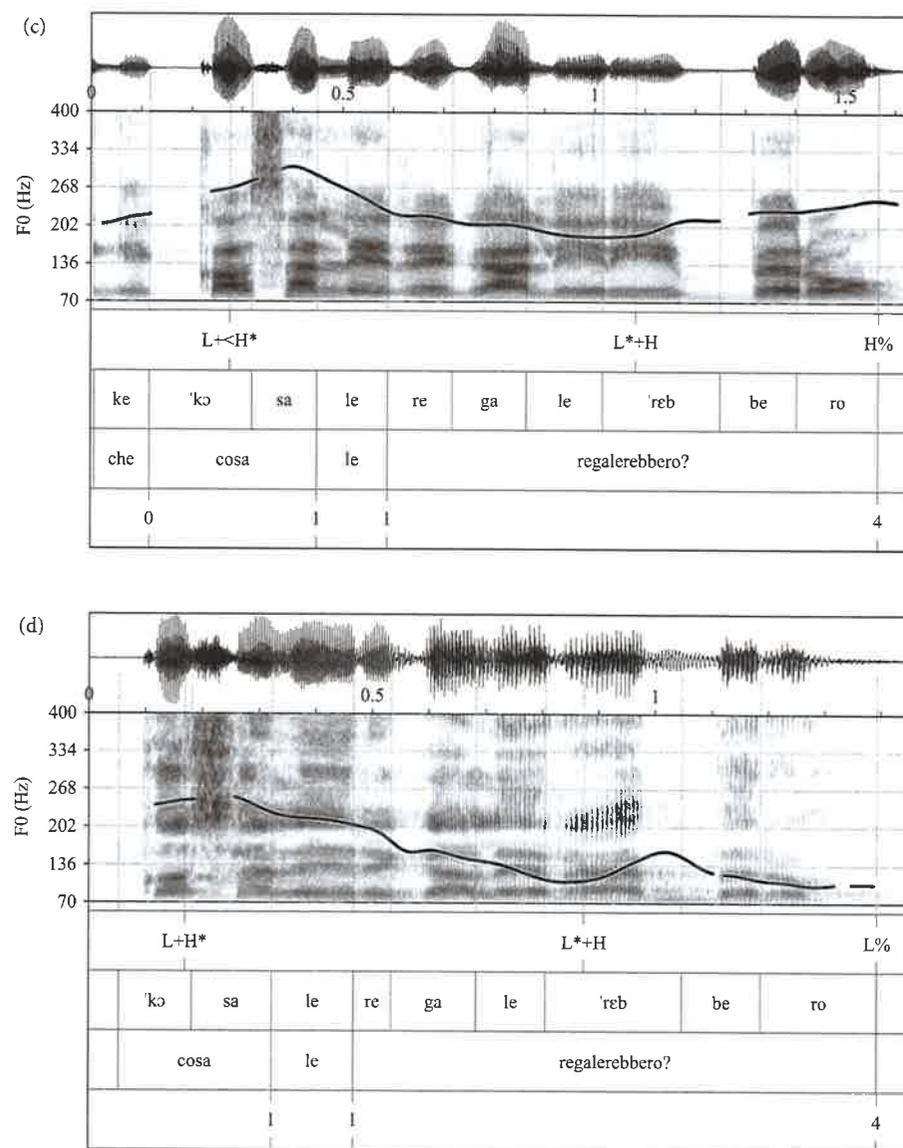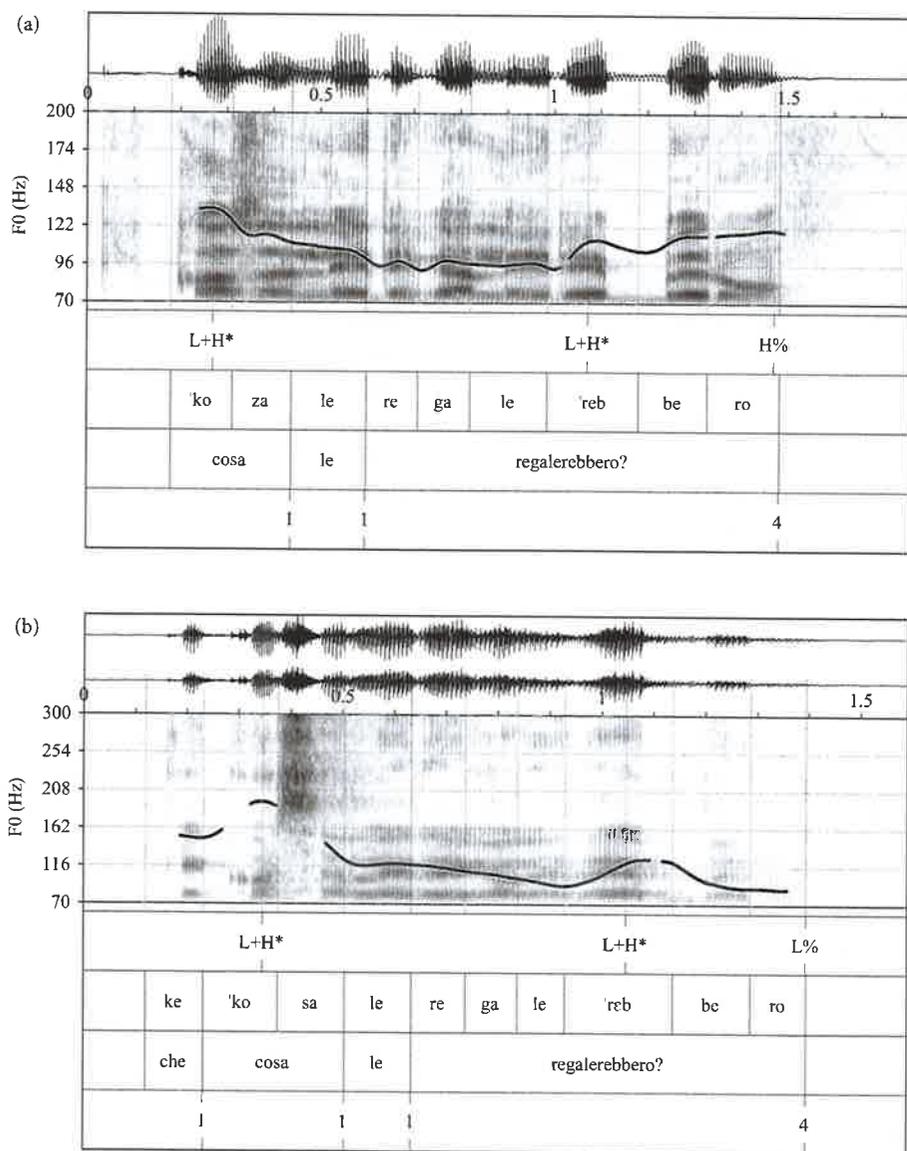[23] No analysis available for Naples and Bari.

Fig. 5.21 Information-seeking question *(Che) cosa le regalerebbero?* 'What would they gift her?', speakers from Rome and Cosenza (a and b), Salerno and Pescara (c and d)
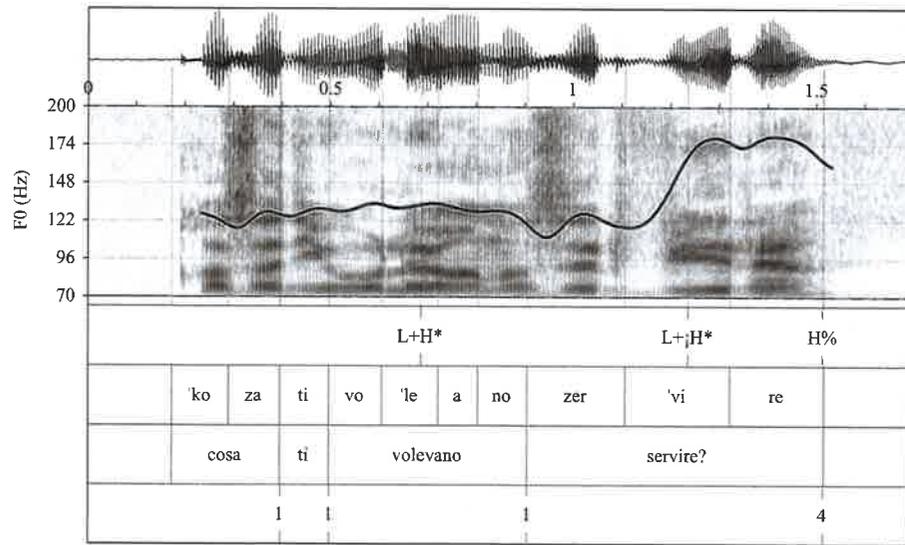
Fig. 5.21 Continued

		L+H*					L+¡H*		H%	
'ko	za	ti	vo	'le	a	no	zer	'vi	re	
cosa		ti		volevano			servire?			
1		1		1				4		

Fig. 5.22 Incredulity question *Cosa ti volevano servire?* 'What did they mean to serve you?', speaker from Rome

L+>H*							L+¡H*		L%	
'ko	za	ti	vo	'le	va	no	ser	'vi	re	
cosa		ti		volevano			servire?			
1		1		1				4		
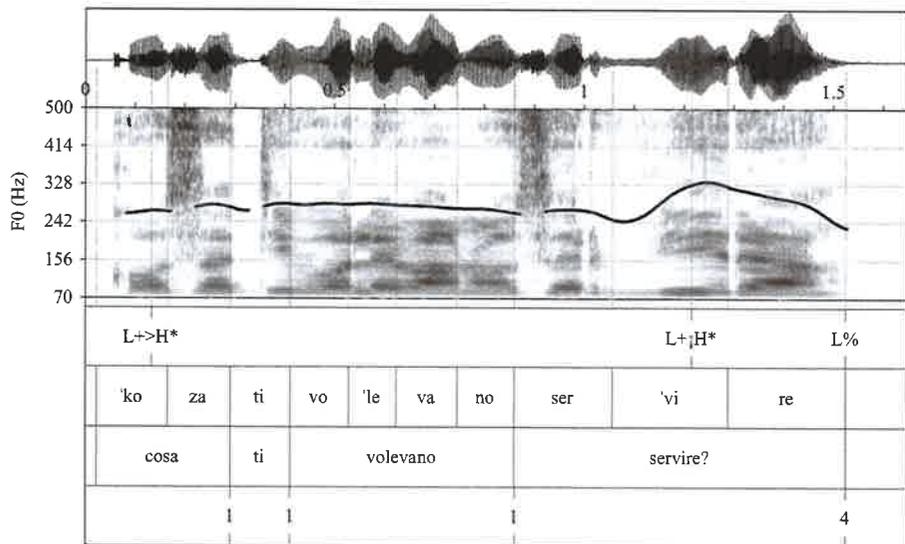
Fig. 5.23 Incredulity question *Cosa ti volevano servire?* 'What did they mean to serve you?', speakers from Lecce

L+H*		H+L*	L-			H*		L%
'vje	ni	'kwi		per	fa	'vo	re	
vieni		qui		per		favore!		
1		3		1			4	

	L+H*			L-L%
as	'pet	ta	mi	
		aspettami!		
				4

Fig. 5.24 Command *Vieni qui, per favore!* 'Come here, please!', speaker from Siena (top) and *Aspettami!* 'Wait for me!', speaker from Turin (bottom)

where in particular a high pretonic H*+L is found; see also fn. 13 and §5.3.2). However, in several cases a very prominent initial L+H* accent is found, or a %H initial boundary could be hypot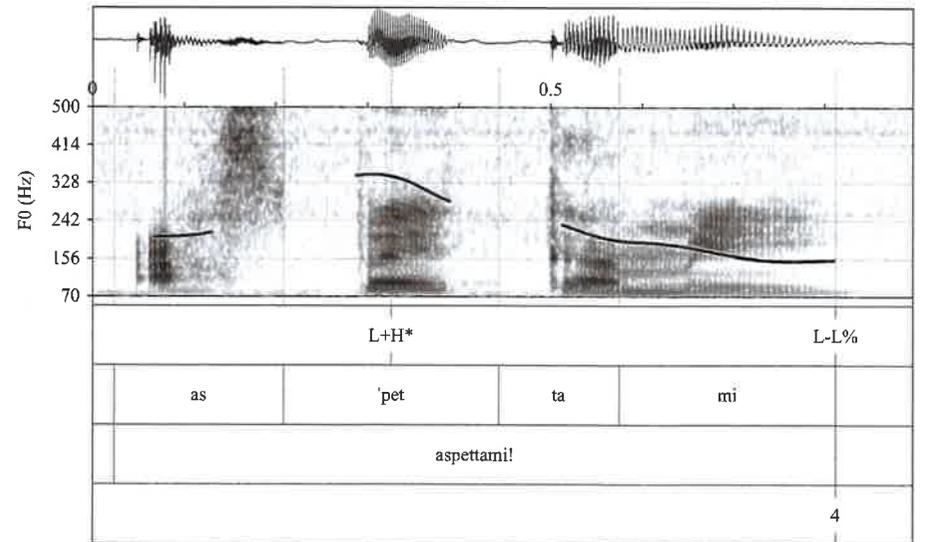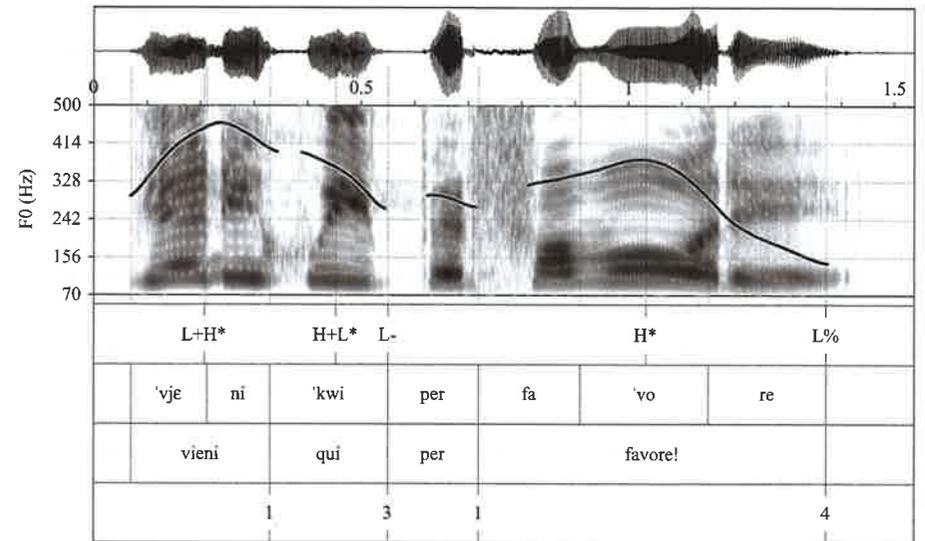hesized to account for a quite high initial peak or a high F0 onset, respectively (e.g. in the productions found in Milan, Turin, and Rome).

5.3.5.2 Requests   As far as requests are concerned, data collected so far show that they are usually realized with a rising–falling pattern, analyzed as involving a contrastive pitch accent. That is, the nuclear pattern is L+H* L% in Milan, Turin, Florence, Siena, Salerno, H*+L L% in Pisa, Cosenza, and in a few cases in Pescara.[24] However, as a general observation, given the same phonological pattern, the productions may be globally lengthened and sound slightly chanting; moreover, as observed in Cosenza Italian, for instance, the pitch range appears also to be smaller than the one used in commands (Fig. 5.25, top). The above-mentioned features, including the chanting, seem to suggest that the speaker is sorry because of the apparent listener's decision not to do what the speaker wishes. The context used for eliciting such sentence types could have favored this kind of realization.

In some varieties, however, in particular those spoken in Lucca, Rome, Naples, and Pescara, the typical pattern used is not the contrastive one: in the first two, it is a regular H+L* L%, while in the latter two it is often a H+L* L% showing a boosted H leading tone (Fig. 5.25, bottom; in Pescara it is the high pretonic H+L*—see §§5.1.3 and 5.3.1—followed by an edge tone combination which is provisionally analyzed as HL%, though it could be !HL%).

5.3.6 Vocatives

5.3.6.1 Initial call (or greeting call)   The vocative initial call is realized quite homogeneously across varieties. Indeed, most varieties show a rising pitch accent and an edge tone involving a downstep-high. For instance, in Milan, Turin, Florence, Siena, Pisa, Lucca, Rome, Pescara, Naples, Salerno, Cosenza, and Lecce an L+H* H!H% pattern is observed (Fig. 5.26).[25]

However, other possible patterns are observed in Pisa, Lucca, Salerno, and Cosenza, and correspond to L+H* L%, while in Naples and Pescara H+L* L% may also be found (in Pescara it is the high pretonic accent; see §§5.1.3 and 5.3.1).

5.3.6.2 Insistent call   The insistent call, i.e. a second vocative, may be variably realized across varieties. Different options have been observed, among which the most common are:

(i) an L+H* H!H% pattern, i.e. the same phonological pattern used in the first call, in which a higher F0 peak may be realized and the nuclear syllable may be lengthened (e.g. in Pisa, Pescara, Salerno, and Cosenza) (Fig. 5.27, top);
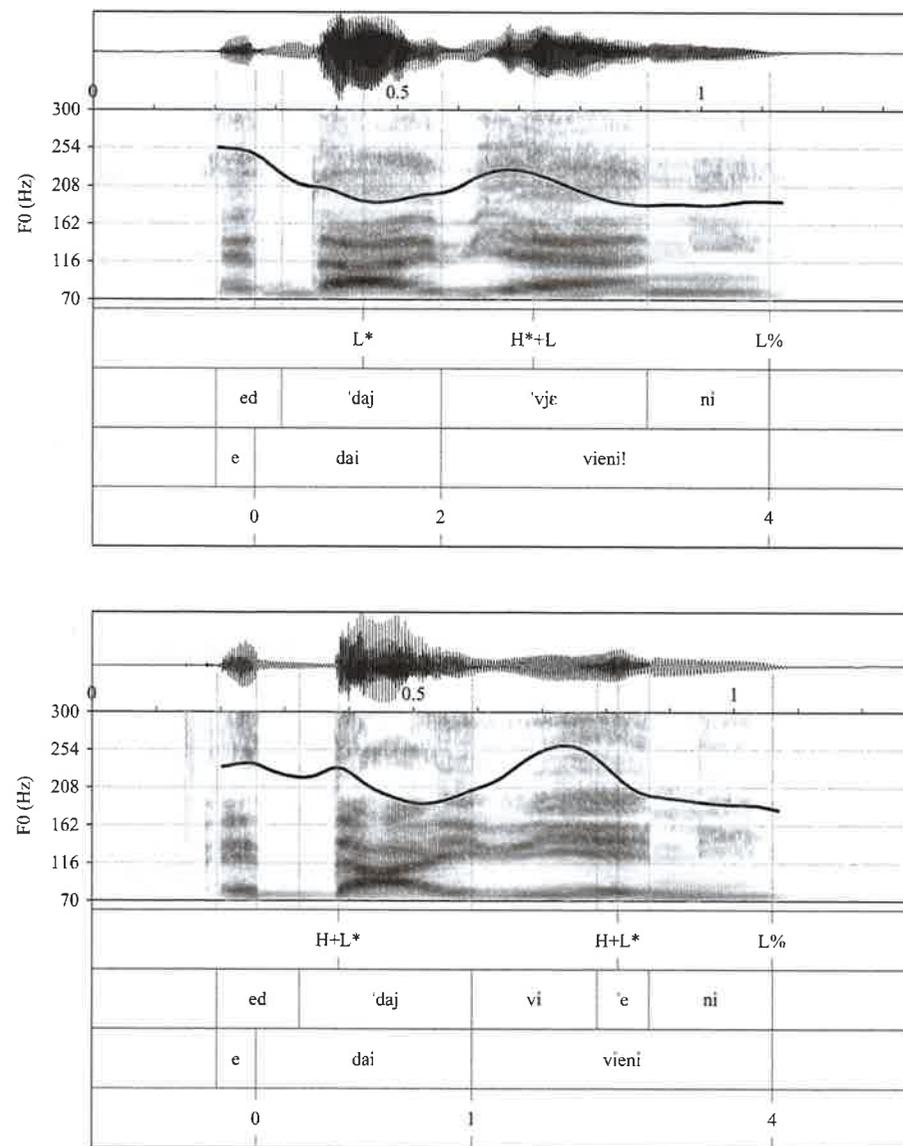
FIG. 5.25 Imperative request *E dai, vieni* 'Come on, join us', speakers from Cosenza (top) and Naples (bottom)
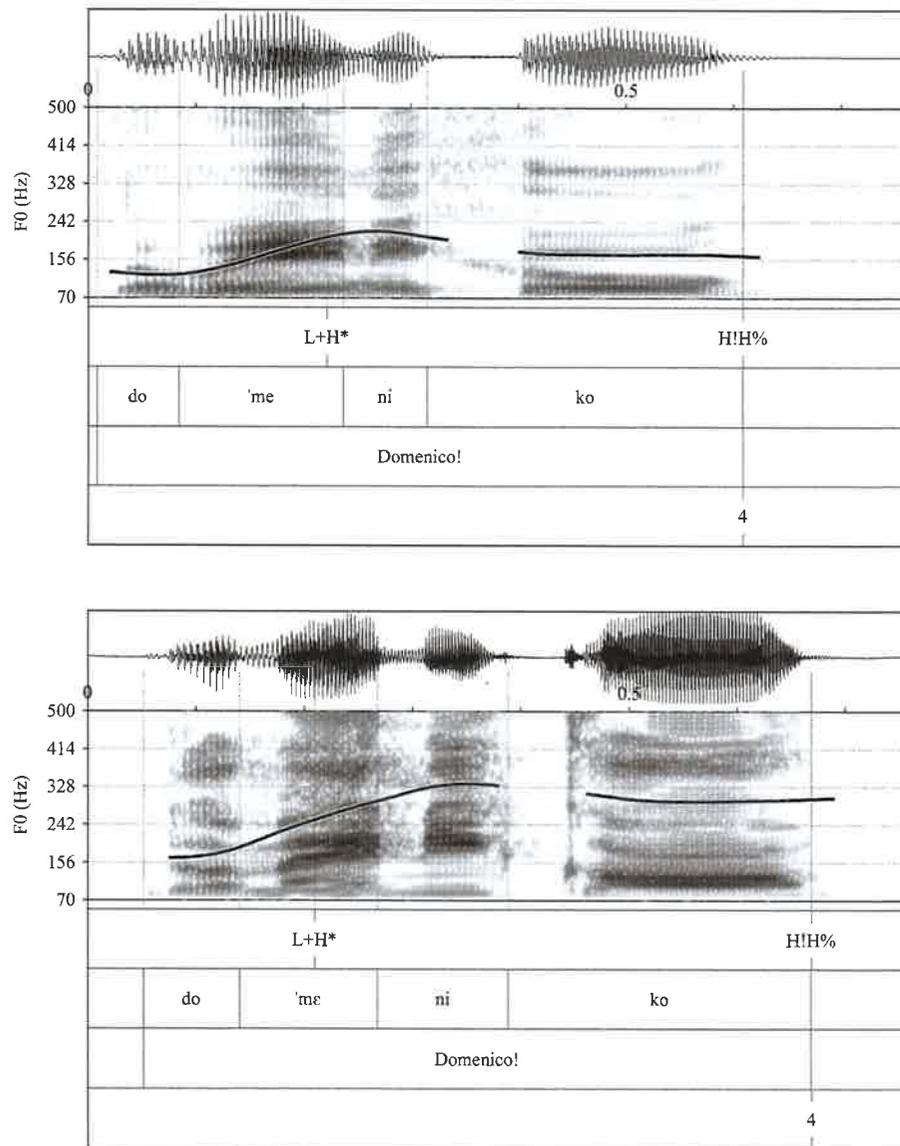
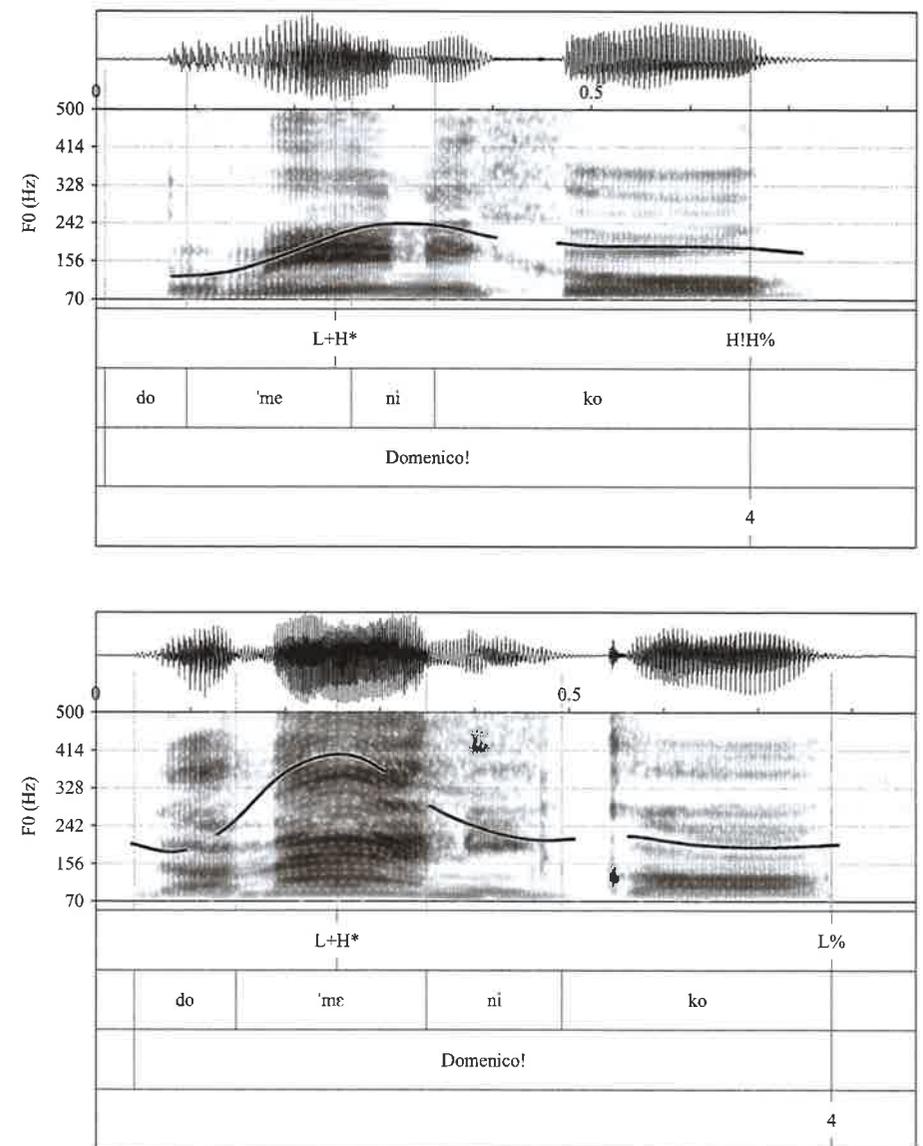FIG. 5.26 Initial call *Domenico!* 'Domenico!', speakers from Lucca (top) and Cosenza (bottom)

FIG. 5.27 Insistent call *Domenico!* 'Domenico!', speakers from Lucca (top) and Cosenza (bottom)

(ii) an L+H* L% pattern (e.g. in Milan, Turin, Florence, Pisa, Siena, and Cosenza) (Fig. 5.27, bottom).

Other options are observed in Naples (H+L* L%), Rome (L+H* HL%), Pisa, Lecce (H*+L L%), and Pescara (where, apart from H*+L L%, a high pretonic H+L* L% is also found, usually after truncation of post-accentual syllables).

5.3.7 Intonational analysis: summary

In this chapter thirteen different varieties of Italian were taken into account, spoken in towns of Northern, Central, and Southern Italy. They are Milan, Turin, Florence, Siena, Pisa, Lucca, Rome, Pescara, Naples, Salerno, Cosenza, Bari, and Lecce. The thirteen locales were chosen in order to represent different areas of Italy, since Italian shows different features depending on the areas where it is spoken. Considering the quite complex situation that is described in relation to the vernaculars spoken in Italy and the fact that a common Italian language is a quite recent acquisition (§5.1), it is not surprising that a high degree of variation characterizes Italian as spoken in different areas.

Previous works have shown that varieties of Italian may differ from the rhythmic point of view, and as shown in the previous sections, they clearly differ as to the intonational inventory they select and, especially in some cases, as to the phonetic characteristics of the phonological unit implementation. However, the main nuclear configurations identified on the basis of the role-play interview corpus and our previous work are summarized in Table 5.4,[26] where their main functions are also described.

In some cases, among possible nuclear configurations there is one that can be used by speakers from different varieties (e.g. in broad-focus statements, lists, wh-questions, counterexpectational wh-questions, disjunctive questions, and vocatives). Nevertheless, in most cases a high variability is found in relation both to the intonation inventory selected by speakers of different varieties and to the specific functions associated with nuclear configuration. Only in very few cases may such variability be somehow related to different phonological analyses applied to very similar contours in different varieties, for system-internal reasons. The most problematic cases among those discussed in this chapter relate to the analysis of the early peak accent expressing contrastive-correction focus. In general, varieties of Italian show an early peak pitch accent, but they may differ as to the on-ramp (L+H*) vs. off-ramp (H+L) analysis. In this and in similar cases (such as those relating to the analysis of scaling and alignment implementation differences and the choice of H+L* vs. L*, L+H* vs. H*, L+H* vs. L*+H), we kept the analyses that appeared to be strongly motivated by previous experimental investigations, and we agreed that a

[26] Echo and confirmation questions are not included, and schematic representations only represent stereotypical realizations (details in Table 5.1). Moreover, especially for some pragmatic types that were not previously investigated (e.g. imperative requests), the description proposed here has to be confirmed by

TABLE 5.4 **Inventory of main nuclear configurations found in the thirteen varieties of Italian, their schematic representations, and their use in main sentence types**
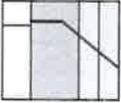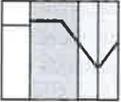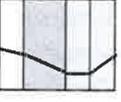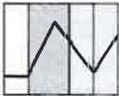
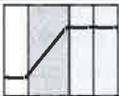| Nuclear configuration		Sentence types in which it is used
	H* L%	Exclamatives (Cosenza)
	H* LH%	Yes/no questions (Florence and Siena).
	H+L* L%	Broad-focus statements, intermediate and final item in lists, narrow informational focus (e.g. Florence and Siena); contrastive-corrective narrow-focus statements (in Pescara, when realized as a high pretonic pitch accent that in long constituents corresponds to a high plateau, described as L+H* H+L*, as a second option in some varieties); exclamatives (Lucca, Milan, Salerno, and Lecce); wh-questions (Milan, Turin, Pisa, Lucca, Rome, Pescara, Siena, Naples, Cosenza, Salerno, Bari, Lecce); final item in disjunctive questions, commands (Milan, Turin, Florence, Siena, Lucca, Pisa, Rome, Salerno, Pescara, Lecce); imperative requests (Lucca, Rome, Naples, Pescara; in the latter two, the high pretonic pitch accent is found); vocative initial call (Naples and Pescara, where the high pretonic pitch accent is found).
	H+L* LH%	Yes/no questions (Milan, Turin, Lucca, Salerno, Cosenza, Lecce); wh-questions (Milan, Turin, Rome, Florence, Siena, Lucca, Salerno, Bari, Cosenza); possible in lists.
	H+L* HL%	Yes/no questions (Pisa, Lucca).
	H*+L L%[a]	Contrastive-corrective narrow-focus statements (Pisa, Rome, Pescara, Bari, Cosenza, Lecce); yes/no questions (Milan, Pisa, Rome, Pescara, Salerno, Lecce); counterexpectational yes/no questions, exclamatives (Pisa, Lucca, Rome, Pescara, Salerno, Lecce); commands (Cosenza, Lecce, Pescara); imperative requests (Pisa, Cosenza, Pescara, where the high pretonic variance is found); vocative insistent call (Pisa, Pescara, Lecce).
	H*+L LH%	Yes/no questions (Milan, Pisa, Rome, Pescara, Salerno, Lecce).

TABLE 5.4 **Continued**

Nuclear configuration	Sentence types in which it is used
L+H* L%	Not final item in lists, early narrow focus (Pisa, Lecce); wh-questions (Cosenza).
L+H* L%[b]	Contrastive-corrective narrow-focus statements (Milan, Turin, Florence, Siena, Lucca, Naples, Salerno); exclamatives (Turin, Florence, Siena); yes/no questions (Salerno, Cosenza, Bari); counterexpectational yes/no questions; commands (Turin); imperative requests (Milan, Turin, Florence, Siena, Salerno); vocative initial call (Pisa, Lucca, Salerno, and Cosenza); vocative insistent call (Milan, Turin, Florence, Pisa, Siena, Cosenza).
L+H* LH%	Yes/no questions (Turin, Salerno, Cosenza, Bari).
L+H* L!H%	Counterexpectational yes/no questions (Lecce).
L+H* H%	Wh-questions (Rome, Cosenza); possible on intermediate item in lists.
L+H* H!H%	Vocative initial call (Milan, Turin, Florence, Siena, Pisa, Lucca, Rome, Pescara, Naples, Salerno, Cosenza, Lecce) and insistent call (e.g. Pisa, Pescara, Salerno, Cosenza).
L+¡H* H%	Counterexpectational wh-questions (Milan, Turin, Florence, Siena, Pisa, Lucca, Rome, Salerno, Pescara, Cosenza).
L+¡H* LH%	Echo yes/no questions (Lucca).
L+¡H* L%	Counterexpectational yes/no questions (Bari);[c] counterexpectational wh-questions (Lecce, Salerno, Pescara).
L*+H H%	Wh-questions in Pescara and Salerno.
L*+H HL% L*+H HL-L%	Yes/no questions (Turin and Naples, although in the latter the low target in the pitch accent is aligned earlier and a bitonal phrase accent is found; see discussion in text).
L*+>H L%	Exclamatives (Turin, Milan, Lucca, Rome, Lecce).
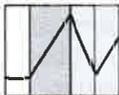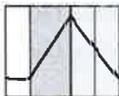
[a] See fn. 16 for a possible analysis in terms of H* secondary association of the shared feature of the early peak alignment in both L+H* L% and H*+L L% for contrastive-correction focus.
[b] See fn. 16.
[c] On the basis of Savino and Grice (2007; 2011).

guideline for the analysis of 'new' varieties—or varieties in which this specific pattern was not systematically investigated—is, and should be in future, that transcriptions should be internally motivated only if strictly necessary, and indeed they should be as consistent as possible with those proposed for other varieties; finally, they should be suggested together with an explicit statement on their motivation and with the purpose of performing specific experimental checks as soon as possible.

Our findings concerning contours and contexts considered in previous work basically confirm stable phonological analyses proposed in the literature (Grice et al. 2005; Savino 2012; see §5.1.2 for discussion). A few exceptions show slight changes in transcription that enable a better cross-variety and cross-language comparison (e.g. the change from !H+L* or L* to H+L* in some varieties, to transcribe uniformly the broad-focus accent independently from the way the high tone is implemented, or that from 'L+H* [high peak]' to 'L+¡H*' to distinguish polar questions expressing incredulity and information-seeking yes/no questions in Bari Italian); another change regards the choice of an off-ramp vs. an on-ramp analysis in the case of the early peak accent expressing polar questions in Rome Italian, labeled as L+H* by Savino (2012) and as H*+L here on the basis of the data analyzed for a wider set of sentence types, apart from polar questions.

Apart from this, a number of sentence types and contexts were considered in this chapter that had not bee previously analyzed and that offered a chance to observe, in a cross-variety perspective, new pitch events (such as L+¡H*, L*+>H), specific implementations of well-known pitch accents (e.g. the high tone in H+L* as well as in H*+L), and new nuclear contours (such as L+H* L!H%, L+¡H* L%, L+¡H* LH%, L+¡H* H%).

In all cases, the present work represents a systematic attempt to reconcile system-internal needs and requirements related to cross-variety, and cross-language, comparisons. Importantly, it is the first work to do so on a representative set of varieties of Italian and on the basis of a wide and representative set of sentence types, acquired by means of the same comparable method. Thus, this chapter contributes to the debate on phonological analysis and language variation, showing in particular the wide variation found in varieties of the same language which relate to differences in phonological choices, as well as in phonetic implementation and in form-to-function mapping. Pointing out the clear need not to consider Italian intonation as uniform, this work will have an impact on the knowledge of Italian intonation from a sociolinguistic point of view and on future work on the acquisition of Italian both as a first and as a second language. Moreover, the chapter underlines the importance of both maintaining variety-internal phonological features and performing cross-variety comparison, and in this respect it has a relevant theoretical impact. For instance, it suggests that, in some cases, shared and common aspects could be identified despite the differences found across variety (e.g. the early peak position used to express contrastive-correction focus, independently of the on-ramp vs. off-ramp analysis required in different varieties of Italian: see fn. 14).

As for cross-language comparison, the corpus collected and the analysis performed here facilitate comparison with other Romance languages and highlight common features. Some of them are pointed out here, with specific reference to the descriptions found in the various chapters in this volume. For instance, varieties of Italian considered so far show a H+L* L% nuclear contour in broad-focus statements, like Sardinian, Algherese Catalan, Cisalpine Occitan, Friulian, Romanian, Brazilian, and European Portuguese (with the exception of Northern Interior areas such as Braga, which instead show L* L%, i.e. the contour found in Romance languages other than those mentioned above). As for contrastive-correction narrow focus, the two pitch accents observed in varieties of Italian are found in the other Romance languages too in relation to the same function (e.g. L+H* found in one Brazilian Portuguese variety—namely Rio Grande do Sul—apparently showing an early peak alignment, and H*+L found in European Portuguese). Regarding yes/no questions, varieties of Italian show more than one option and, in general, a strong differentiation involving falling–rising (e.g. H+L* LH%), rising–falling (e.g. L+H* L%), rising–falling–rising (e.g. L+H* LH%), and falling–rising–falling patterns (H+L* HL%), some of which are also found in other Romance languages (e.g. L+H* L% in Romanian and Friulian and H+L* LH% in Standard European Portuguese). However, apart from the presence of both rising accents (also found often in questions in other Romance languages, such as in most varieties of European and Brazilian Portuguese, Romanian, Friulian, Catalan, and French) and falling accents (also found in other Romance languages, such as Catalan, Standard European Portuguese), varieties of Italian show a high number of combinations of the observed pitch accents and rising or falling edge tone

combinations. This richness of patterns is also found in checks and echo questions (which are often conveyed by the same patterns found in information-seeking yes/no questions), and is only partially relatable to stylistic choices. For instance, previous work on Bari Italian has shown that rising terminals are more typically produced by speakers when reading aloud, probably because they try to implement patterns that they think are more 'prestigious', while spontaneous yes/no questions, such as those found in Map Task dialogues, are realized with a final falling pattern (Savino and Refice 1996; Refice et al. 1997; Grice et al. 1997). However, if some differences in the observed pattern may relate to the above-mentioned stylistic choices, the cross-variety differentiation cannot be explained only by such choices. Wh-questions show a statement-like intonation (i.e. H+L* L%), although they may also show final rising contours (H+L* LH%, similarly to that found for other Romance languages, such as Standard European Portuguese and Brazilian Portuguese in Rio Grande do Sul, although the latter shows a final H% boundary tone). Echo wh-questions are similar to yes/no echos in Italian varieties, as in other Romance languages too (e.g. Portuguese). As for commands, the H+L* L% is found in most cases, as happens in some other Romance languages such as Brazilian Portuguese and Friulian (although the contrastive-correction pattern is also found, as in European Portuguese). Finally, a common pattern found in vocatives is actually found in most Romance varieties, i.e. the L+H* !H%, although in varieties of Italian, similarly to Friulian, the pattern rather corresponds to L+H* H!H%, as a high tone is found in the posttonic syllable and the mid tone is rather realized afterwards. The insistent call in vocatives does not necessarily need to be marked by different phonological patterns, but in this case there are usually phonetic cues to the difference (such as higher F0 peak), as found in European Portuguese. As a final general observation, it is interesting to note that the work carried out on Italian varieties shows that, when considering intonation, there are no homogeneous areas that match those established on the basis of non-prosodic variation observed in the vernaculars spoken in the peninsula, and this resembles the situation observed for other Romance languages too, such as Portuguese.

5.4 Conclusion

The intonational analyses proposed in the chapter relate to thirteen varieties of Italian (those spoken in Milan, Turin, Florence, Siena, Pisa, Lucca, Rome, Pescara, Naples, Salerno, Cosenza, Bari, and Lecce) and stems both from previous studies on the varieties considered and from the analyses carried out on the corpus collected for the Romance languages described in this volume. This implies that proposals made here may be completely new, as the types of sentence considered were not always present in previous studies. However, the most relevant novelty in the chapter relates to the clear and explicit effort made to offering analyses and transcriptions, keeping

always in mind cross-variety comparison, to finally allow cross-language comparison as well. Importantly, it is the first work on Italian in which this has systematically been done and, moreover, on the basis of a wide and representative set of sentence types, in addition to the number of varieties considered.

The overview of the characteristics observed in the varieties of Italian clearly show that a strong differentiation may be observed for some sentence types and functions, to the extent that it is not possible to highlight the presence of homogeneous macro-areas similar to those found for vernaculars on the basis of non-prosodic features, and only some similarities may be pointed out between varieties. A sort of mixing of patterns throughout Italy may be observed, and, in this respect, an interesting research question relates to the possible reasons for that, ranging from the influence of varieties perceived as more prestigious ("overt prestige" in Labovian terms), to the influence of varieties that are not necessarily perceived as more prestigious, but that have become very familiar due to their use in the media ("covert prestige").[27] On the other hand, a strong homogeneity was found in relation to very specific functions, usually in relation to one possible pattern (e.g. lists, disjunctive questions, vocatives, and counterexpectational wh-questions). That is, the Italian system is definitely not homogeneous, as expected. However, there are functions expressed using more stereotypical patterns, meaning patterns shared by many varieties. A point we want to make here is that these shared patterns are not necessarily found in a specific speech style (e.g. read or spontaneous speech) and do not depend on the control that speakers may perform, trying to realize patterns that they perceive as part of, say, a prestigious variety of the language.

Given this situation, the transcription system proposed for the varieties of Italian corresponds to the identification of the units in the intonational inventory and to the rough description of the main characteristics expected in their implementation. However, even when using such a system, it is very rarely possible to report the transcription of specific functions as produced in Italian (which in any case would mean all the varieties investigated in comparable terms so far). Rather, in most cases, a transcription may be proposed for the way given pragmatic functions are produced in specific varieties of Italian. Indeed, as stated at the beginning of the chapter, the Italian language is phonetically and prosodically highly heterogeneous even when its varieties are considered—that is when we consider the way the national, "standard" language is spoken by people from different areas or socioeconomical groups or by people of different ages, and even if we do not include vernaculars spoken in Italy.

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[27] Apart from the media, schooling, urbanization, and immigration had an impact on the development of Italian as a national language. Internal migration in particular may also have favored, to a certain extent, a sort of "mixing of patterns." Indeed, from the mid-19th c. to the 1970s, a number of people moved from the southern regions and from islands to the industrial areas in the northwest of Italy (apart from the smaller number of people who moved from the Northern and Central areas to the South and islands, due to the redevelopment and repopulation policy pursued in the Fascist period).

Acknowledgements