

Venezuelan Andean Spanish Intonation*

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1. Introduction

Lying in western Venezuela, the state of Mérida is traversed by the eastern branch of the northern Andes and has an area of 11,300 km², which corresponds to approximately 1.2% of the national territory. The main economic activities of the region are agriculture and tourism. The city of Mérida itself has 300,000 inhabitants (2001 census) and constitutes a national cultural and university centre. The Universidad de Los Andes is a major source of employment in the region, specifically in the areas of teaching, research and services.

The structure of this chapter is as follows. Section 1 first offers an overview of past intonational research in Venezuelan Spanish and especially in Venezuelan Andean Spanish and then describes the methodological procedure used in the present study. Section 2 presents an inventory of pitch accents and boundary tones found in the Mérida dialect. Section 3 analyses the basic intonation contours found in the Mérida corpus. Finally, Section 4 summarises the nuclear patterns in the different sentence types.

The study of intonation does not have a long history in Venezuela and, furthermore, the rather scant research has been mostly oriented towards dialectology. The first study of the intonation of Venezuelan Spanish was published in the phonetics section of *El habla de Caracas* (Mosonyi 1971). A decade later, Obregón (1981) carried out a dialectal study in which he analysed the distribution of certain characteristic patterns (which he called *construcciones entonativas*) and which led him to propose a division into five dialectal areas: Mérida and Táchira (southwest), Maracaibo (northwest), Nueva Esparta and Sucre (east), Apure and Guárico (south) and the rest of the country (centre). Other important contributions are those by Sosa (1991, 1999), Chela Flores (1994, 2002), Mora (1996) and Díaz Campos and Tevis McGory (2002). Sosa (1991, 1996) analyses the intonation of several Latin American dialects, including the Venezuelan regions of Caracas and Maracaibo, but makes no reference to the Venezuelan Andes. He proposes for Caracas Spanish the tonal sequence L*+H L*+H H*

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L% for statements and the sequence %H *+H H* H+H* L% for absolute interrogatives. Chela Flores has also worked on Maracaibo Spanish (1994, 2002, and others). Mora (1996) proposes a dialectal prosodic division into five areas (Andes, Llanos, Centre, Southeast and Zulia). Díaz Campos and Tevis McGory (2002) examine eight Latin American dialects, among them Venezuelan Spanish (but excluding the Andean region) and note that the typical statement pattern is L*+H for prenuclear accents and L+H* for nuclear accents, and that L% is the most frequently occurring edge tone, a combination which is common to many Latin American dialects.

Studies on the intonation of Mérida Spanish are even more scarce. For instance, Mora (1993) analyses yes-no interrogatives and compares them with their declarative counterparts. Her main findings are that interrogatives i) begin at a higher level, ii) do not necessarily have a final rise, iii) tend to have a slightly higher amplitude and iv) do not necessarily have a longer nucleus. The crucial difference between interrogatives and declaratives appears to lie in the wider pitch excursions of interrogatives. Villamizar (1998) studies declarative utterances in rural Mérida speech and proposes three main nuclear configurations: pattern 1, characterised by a 'circumflex' nuclear accent; pattern 2, with a 'low' accent similar to Peninsular Spanish and pattern 3, with a rising accent.

More recent studies, such as the ones by the group AMPER (*Atlas Multimedia de la Prosodia del Espacio Románico*), tend to be based on fine-grained phonetic measurements of the productions of a small number of speakers (generally two) and are less concerned with issues of phonological transcription or analysis. However, despite the divergence in research goals and methods, some generalizations can be made. For instance, Mora et al. (2006) follow the AMPER methodology and compare SVO declarative sentences of different syntactic complexity to segmentally equivalent interrogatives. Interestingly, declaratives such as *El perico cantaba con paciencia* 'The budgerigar sang with patience' show a 'low nucleus'¹ similar to that of Peninsular and standard Venezuelan Spanish (Mora 1993, 1996) while declaratives with longer predicates such as *El perico cantaba con emoción sincera* 'The budgerigar sang with genuine feeling' tend to present a circumflex nuclear configuration similar to one of

¹ The nuclear accent of broad focus declarative sentences in many Spanish dialects tends to sound low and level, without evidence of tonal movement (at most the effect of declination). Prominence seems to be conveyed exclusively by their amplitude and duration. The phonological characterisation of such nuclei has proved difficult. There are two main approaches in the literature to the phonological classification of the so-called 'low' nuclear accents. One approach considers them actual low accentual targets, L*, and thus categorically distinct from peaked accents. This is the view taken in the analysis of German in Baumann et al. (2001), of Portuguese in Frota (1998) and of Estonian in Asu (2003). The other approach treats 'low' nuclei as downstepped and strongly lowered realizations of high targets, !H*. This is the proposal adopted in Gussenhoven et al. (1999) for Dutch, in Grabe (1998) for German and in Estebas-Vilaplana (2009) for Catalan. Another possibility is H+L*, which has been proposed for different Spanish dialects (Argentina, Chile, Colombia, Venezuela, Guatemala, Puerto Rico, Mexico and Central Spain - Beckman et al. 2002), European Portuguese (Frota 1998) and Catalan (Astruc 2005).

the patterns observed by Villamizar in the rural speech in the Andean dialectal area. All interrogatives, however, tend to have a circumflex nuclear configuration. Figure 1 shows examples of each type.

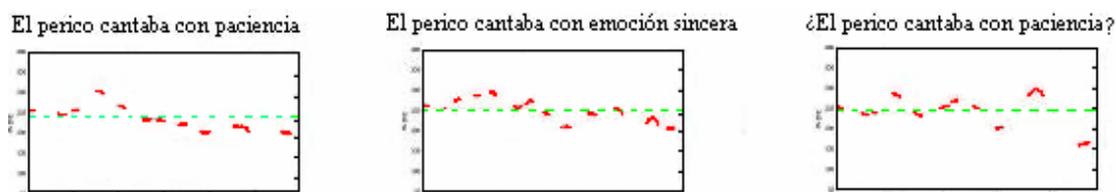


Figure 1: F0 trace for the statements *El perico cantaba con paciencia* ‘The budgerigar sang with patience’, *El perico cantaba con emoción sincera* ‘The budgerigar sang with genuine feeling’ and the interrogative *¿El perico cantaba con emoción sincera?* ‘Did the budgerigar sing with genuine feeling?’

On the other hand, Méndez et al. (2008), also working within the AMPER framework, maintain that interrogatives always begin at a lower than average pitch and never have high final boundaries. They also claim that their nuclear peaks are aligned with the limits of the stressed syllable even when there is enough postnuclear segmental material, as in proparoxytones; in fact, only prenuclear peaks can show delay. They also note that the main difference between rural and urban speech is one of duration/tempo, rather than one of tonal choice. In general, urban speech has a faster tempo than rural speech, especially at the beginning of the utterance. They conclude, in line with Mora (1993), that the crucial difference between interrogatives and declaratives is one of pitch range: interrogatives display wider pitch excursions than declaratives. Indeed, Méndez (also AMPER, submitted) looks in more detail at the interaction of duration and scaling in interrogatives and declaratives in Mérida Spanish and finds that prenuclear peaks in interrogatives are higher and are also reached in less time.

Following the guidelines established for the present volume, three young female speakers of Venezuelan Andean Spanish were recorded by the second and third author. A corpus of utterances was elicited using the guided questionnaire employed to obtain data for all the dialects in this volume (see also Prieto and Roseano coords. 2009-2010). Participants were allowed to adapt the original stimuli lexically and syntactically so it reflected Venezuelan Andean usage if they felt the need to do so. Additionally, extra sentences were recorded separately to investigate details of tonal alignment. The utterances were analysed acoustically and instrumentally with Praat (Boersma and Weenink 2010). The first and second author then carried out independent intonational analyses for the utterances following the revised Sp_ToBI proposal (Beckman et al. 2002, Estebas-Vilapalana and Prieto 2008). The two analyses were compared, and any discrepancies were resolved by mutual agreement.

2. Venezuelan Andean Spanish intonational phonology

2.1. The pitch accents

The tonal inventory for Venezuelan Andean Spanish is generally in line with the proposal by Estebas-Vilaplana and Prieto (2008, this volume) for Castilian Spanish, although with some modifications. There are few differences between the pitch accent inventory that we propose for Venezuelan Andean Spanish and that proposed for Castilian Spanish, the principal one being the general lack of L*+H and H*+L in the former dialect. Thus, Venezuelan Andean Spanish has two monotonal (L* and H*) and three bitonal (L+H*, L->H* and H+L*) pitch accents. Table 1 shows the inventory of pitch accents used in this description.

Table 1: Inventory of monotonal and bitonal pitch accents in Venezuelan Andean Spanish and their schematic representations

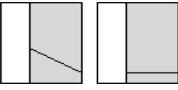
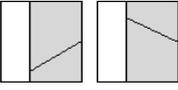
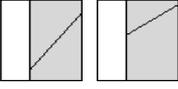
<i>Monotonal pitch accents</i>		
	L*	This accent is phonetically realized as a low plateau at the minimum of the speaker's range.
	H*	This accent is phonetically realized as a high plateau with no preceding F0 valley.
<i>Bitonal pitch accents</i>		
	L+H*	This accent is phonetically realized as a rising pitch movement during the accented syllable with the F0 peak located at the end of this syllable.
	L->H*	This accent is phonetically realized as a rising pitch movement on the accented syllable with the F0 peak aligned with the post-accentual syllable.
	H+L*	This accent is phonetically realized as a F0 fall within the accented syllable.

We transcribe downstep on and from the first affected tone using the downstep diacritic !, in line with Beckman et al. (2005), who argue that this method has the advantage of being theoretically-neutral since, as they contend, none of the competing theories about downstep (Pierrehumbert 1980: downstep is automatically triggered by HLH sequences; Beckman and Pierrehumbert 1986: downstep is triggered by specific pitch accents; Ladd 1990: downstep is phonological) is backed up by empirical evidence.

2.2. The boundary tones

There are four boundary tones in this variety: L%, M%, H% and %H. There may also be a bitonal one, HL%. Table 2 shows the inventory of boundary tones. We have included the HL% bitonal boundary tone for the sake of consistency with other dialects, although the evidence for this in Venezuelan Andean Spanish is not very strong. Additionally, we propose the introduction of an initial high boundary tone %H.

Table 2: Inventory of monotonal boundary tones in Venezuelan Andean Spanish and their schematic representations

<i>Monotonal boundary tones</i>		
	L%	L% is phonetically realized as a low sustained tone or a falling tone at the baseline of the speaker.
	M%	M% is phonetically realized as a rising or falling movement to a target midpoint.
	H%	H% is phonetically realized as a rising pitch movement coming from a low or high pitch accent.
	%H	%H is phonetically realized as a high pitch at the beginning of the utterance.
<i>Bitonal boundary tones</i>		
	HL%	HL% is phonetically realized as a FO peak followed by a fall. It is very rare in the corpus, found only in one type of vocative.

3. Basic intonational patterns in Venezuelan Andean Spanish

In this section we examine the main intonation patterns found for the various sentence types in this dialect in the following order: statements, biased statements, questions (including yes-no and wh-), imperatives and vocatives.

3.1. Statements

3.1.1. Broad focus statements

As in many other dialectal varieties (see Castilian and Chilean Spanish this volume), broad focus statements are produced with delayed prenuclear peaks (L+>H*), high nuclear accents (H* or L+H*, which can be downstepped) and low boundary tones (L%).

Unlike in Castilian Spanish and other varieties, the nuclear accents of broad focus declaratives in Venezuelan Andean Spanish do indeed show clear evidence of tonal movement. Overall, nuclear accents typically show wider pitch excursions than in most other dialects. Figures 2, 3 and 4 show examples of nuclear accents in broad focus statements with different pragmatic nuances.

Figure 2 was elicited with a question about what Ana was saying. Therefore the first clause 'Ana dice' contains background information and the second clause 'que se bebió una limonada' contains the answer; the phrasing into two tonal units reflects this division. Figure 3 was elicited with a scenario designed to complement the standard corpus (Prieto and Roseano coords. 2009-2010), which describes how Juan goes for a stroll on a hot day, then sits in a sidewalk café and drinks a lemonade.

We see in both figures 2 and 3 that the last one or two syllables in the sentence are realized with a very flat pitch and weak intensity and, depending on the speaker, sentence-final syllables can also be reduced, laryngealized or devoiced. However, the nuclear accent receives a clear H* accent, which can be downstepped and lowered but which still remains perceptually high. The nuclear accent of Venezuelan Andean broad focus declaratives is never totally low as may be the case in other dialects.

In figure 4 we see yet another version of the sentence 'Bebe una limonada' 'S/he is drinking a lemonade', this time elicited in reply to the question 'What is the little girl doing?', and which thus contains completely new information (but see Ladd 2008: chapter 6, on the theoretical debate about broad focus).

As we see in figure 4, the pitch is low on the initial pretonic syllable, then goes up throughout the tonic syllable and until the end of the following syllable, which is labelled as L->H*. As for the final part of the contour, the pitch is low on the prenuclear syllable and then rises to the stressed syllable -na-, to then descend gradually until the end of the sentence. We analyse this nuclear accent as a non-downstepped H*. We propose the simplex label H* because the rise lacks any obvious L turning point (see examples with contrastive narrow focus, such as figure 5).

The nuclear accent of broad focus statements in this dialect is thus better analysed as a high tone, which can be a simple rise, with or without downstep, !H* or H*.

3.1.2. Biased statements

3.1.2.1. Narrow focus statements

The nuclear accent of narrow focus statements differs from that of broad focus statements in the prominence of the nuclear accents, which are realized at a higher pitch than those of broad focus statements, as well as in the suspension of downstep.

Figure 5 shows the sentence No, de limones 'No, of lemons', elicited in response to the question 'Do you want a kilogram of oranges?' and thus with contrastive focus on limones.

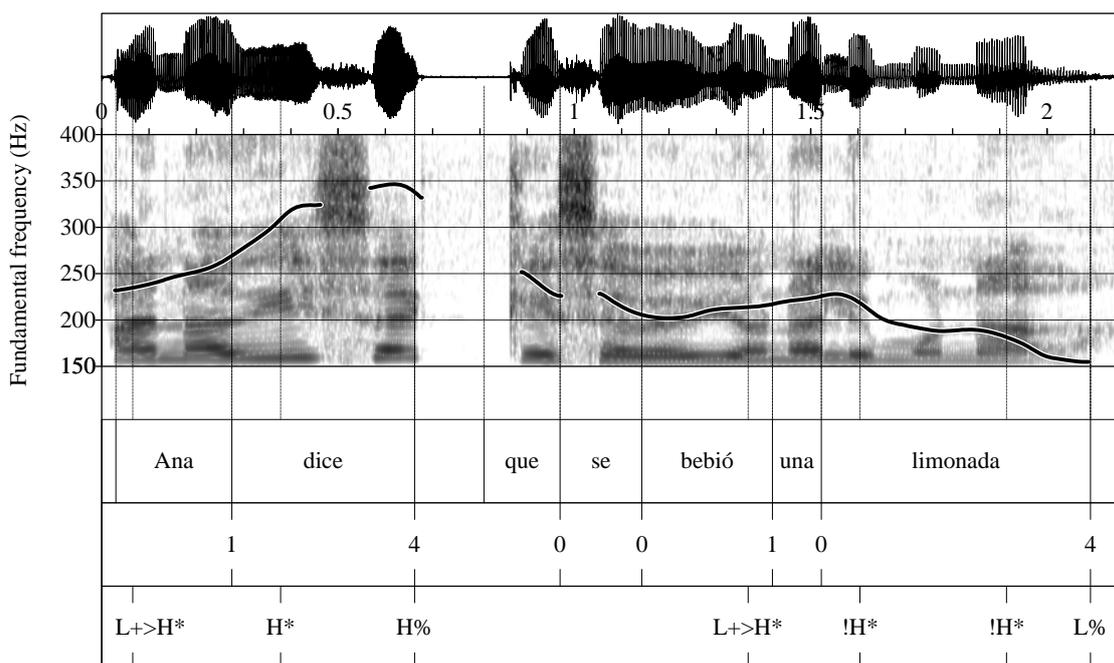


Figure 2: Waveform, spectrogram and F0 trace for the broad focus statement Ana dice que se bebió una limonada ‘Ana says that she drank a lemonade’ produced with a !H* L% nuclear configuration.

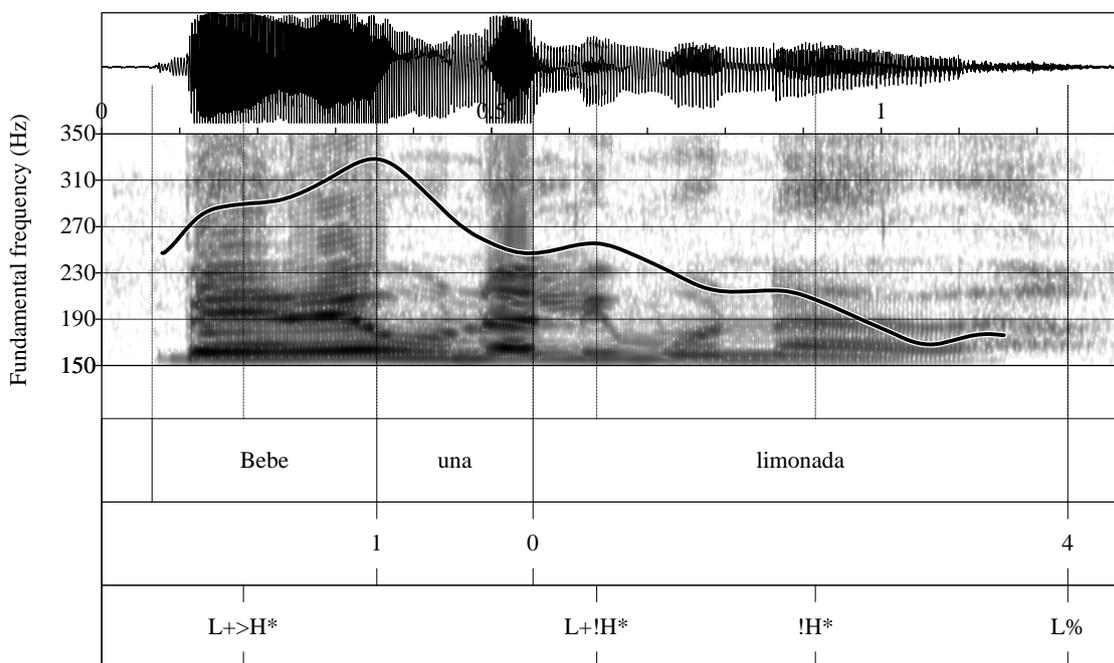


Figure 3: Waveform, spectrogram and F0 trace for the broad focus statement Bebe una limonada ‘S/he is drinking a lemonade’ produced with a !H* L% nuclear configuration.

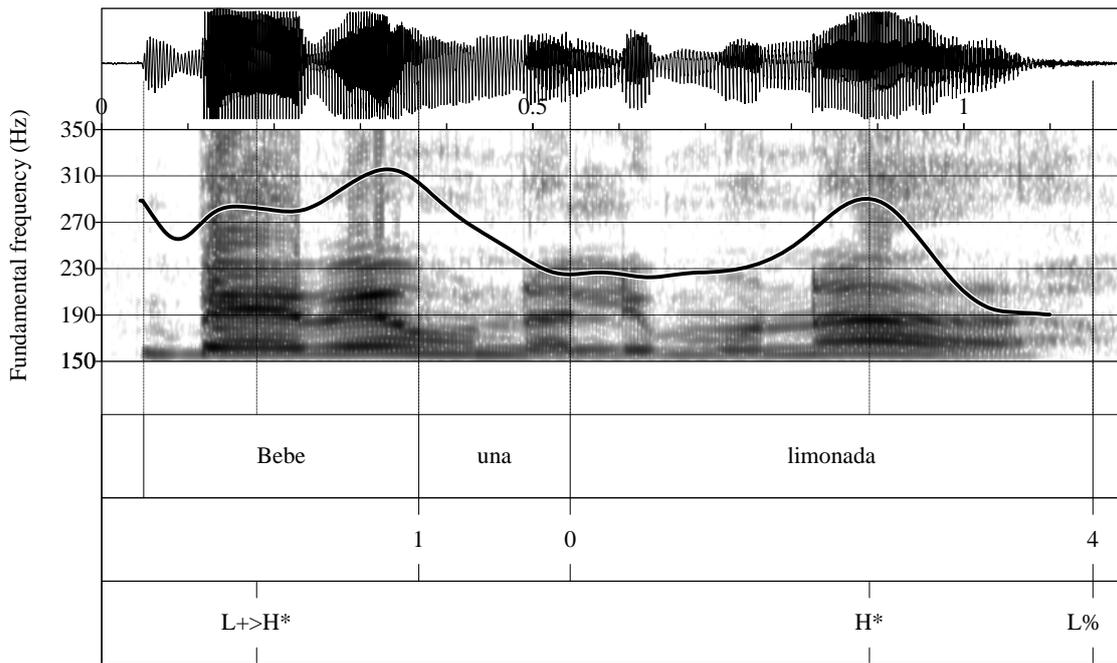


Figure 4: Waveform, spectrogram and F0 trace for the broad focus statement Bebe una limonada 'S/he is drinking a lemonade' produced with a H* L% nuclear configuration.

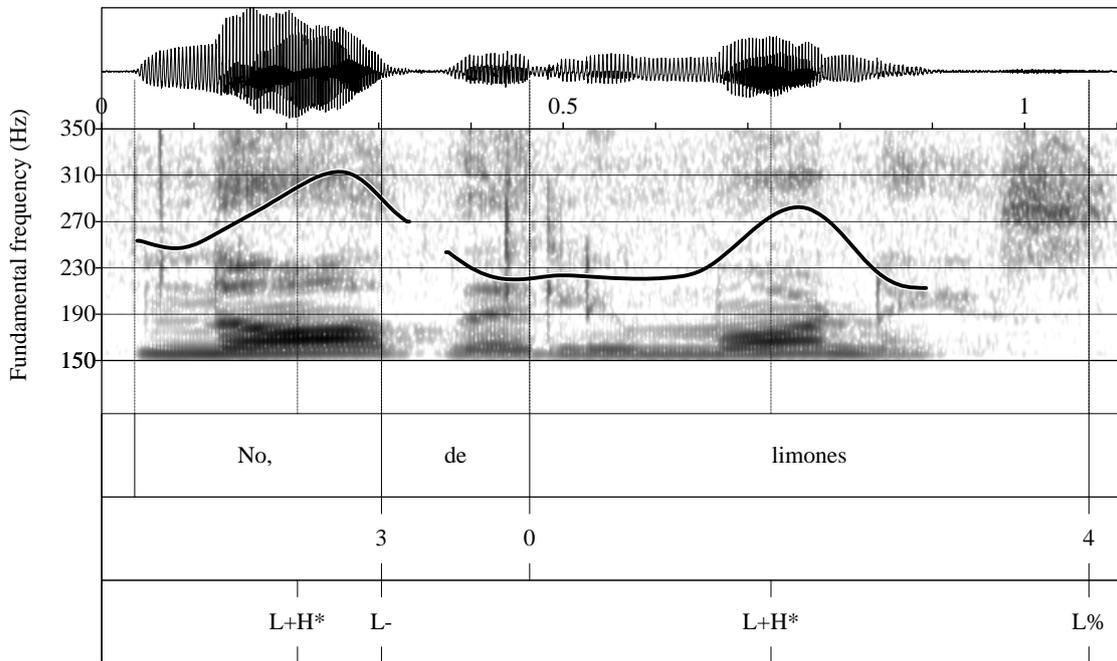


Figure 5: Waveform, spectrogram and F0 trace for the narrow focus statement No, de limones 'No, of lemons' produced with a L+H* L% nuclear configuration.

We note that contrastive narrow focus is expressed by: (i) the alignment of the nuclear peak within the stressed syllable *-mo-*, in *limones*; (ii) the L turning point preceding the nuclear rise; and (iii) the reset of declination within the tonal unit containing the focused element, *de limones*.

Narrow focus correction statements are similar to contradiction statements. The most salient characteristics of contradiction statements are L+(>)H* prenuclear accents, downstepped simplex nuclear accents (!H*) and low final boundary tones (L%). We find the same nuclear tone and boundary tone in Canarian Spanish (Cabrera Abreu and Vizcaíno Ortega this volume).

A good example of a contradiction statement is the sentence *¡Que no, que irán a Lima!* ‘No, they are going to Lima!’ (figure 6). The phrase-final configuration L+H*...L% is common to several other dialects, including Cantabrian (López-Bobo and Cuevas-Alonso), Chilean (Ortiz et al. this volume), Canarian (Cabrera Abreu and Vizcaíno Ortega this volume), Ecuadorian Andean (O'Rourke this volume), and Mexican Spanish (de-la-Mota et al. this volume). Venezuelan Andean Spanish also shares with Dominican Spanish (Willis this volume) the nuclear tone L+H* but not the boundary, which is simplex in our dialect but tends to be bitonal in Dominican.

3.1.2.2. Exclamative statements

Figure 7 shows the exclamative sentence *¡Qué olor a pan tan bueno!* ‘What a lovely aroma of bread!’, transcribed with a L+H* accent on *bueno*. We observe a high prenuclear accent (H*) in *qué*, downstepped high prenuclear accents, !H* in *olor* and *pan*, followed by a L+H* nuclear accent on *bueno* and a mid-level boundary tone M%. Dominican Spanish also has L+H* in this same example (Willis this volume). As for the final boundary, we would expect the final low to be lower than it actually is, since it in fact ends at a mid-point level. We thus analyse this boundary tone as M%, as in the case of Ecuadorian Andean (O'Rourke this volume) and Puerto Rican Spanish (Armstrong this volume).

Another possible pattern is the one we see in *¡Estoy helada!* ‘I’m freezing!’ in figure 8, with a low boundary tone. The prenuclear accent takes a rising shape, the usual L+>H*. Then the pitch rises again on the nuclear accented vowel, which we analyse as ¡H*. The final boundary is low, L%.

3.1.2.3. Statements of the obvious

In the corpus, we have one example: *¡Sí, mujer, de Guillermo!* ‘Yes, woman, Guillermo’s [of course]!’, which is shown in figure 9.

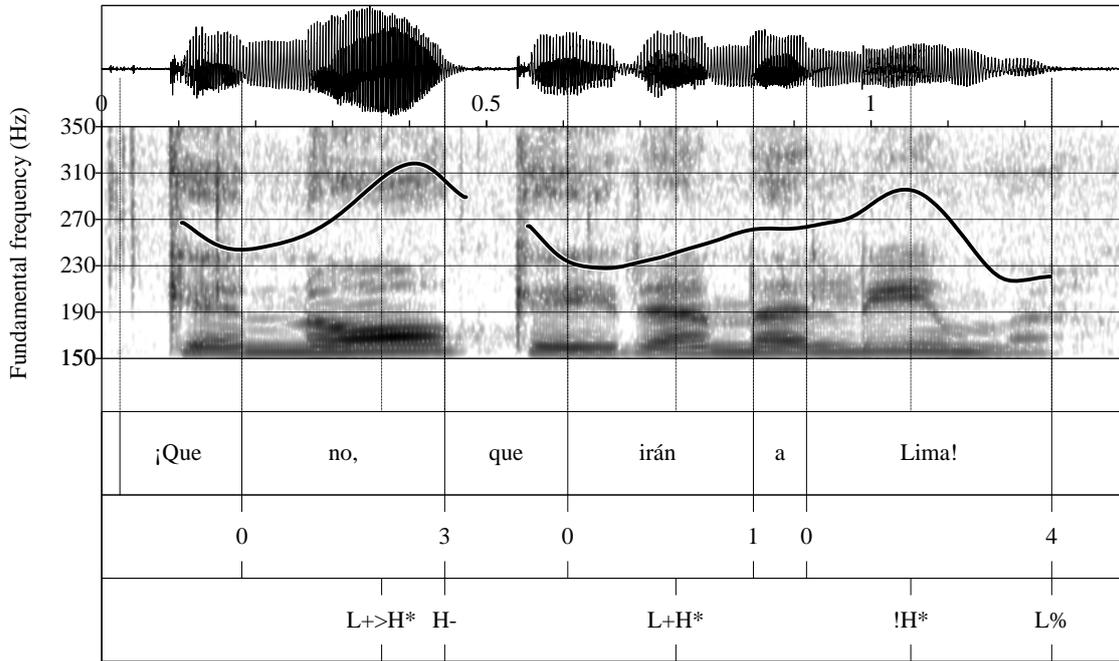


Figure 6: Waveform and F0 trace for the contradiction statement *¡Que no, que irán a Lima!* 'No, they are going to Lima!' produced with a !H* L% nuclear configuration.

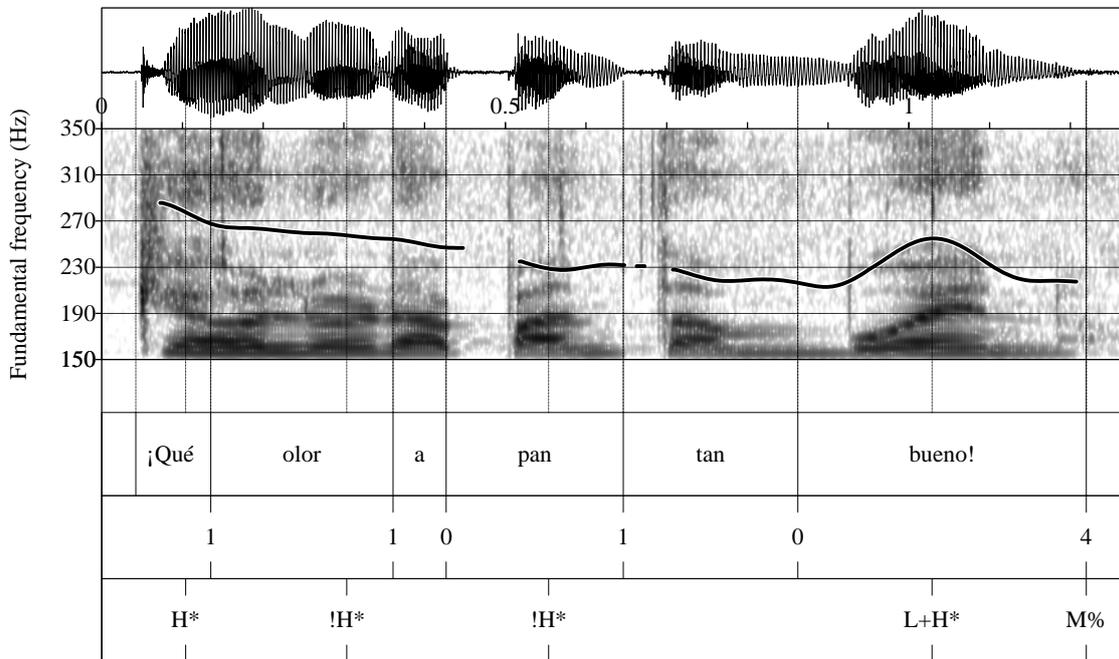


Figure 7: Waveform, spectrogram and F0 trace for the exclamative statement *¡Qué olor a pan tan bueno!* 'What a lovely aroma of bread!' produced with a L+H* M% nuclear configuration.

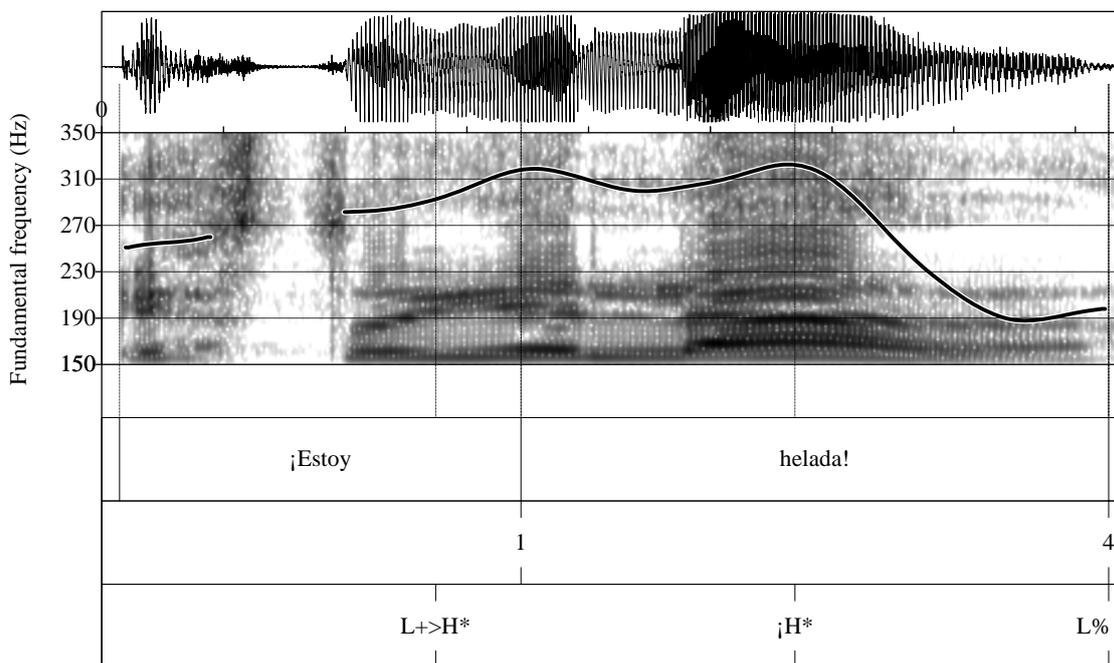


Figure 8: Waveform, spectrogram and F0 trace for the exclamative statement *¡Estoy helada!* 'I'm freezing!' produced with a ¡H* L% nuclear configuration.

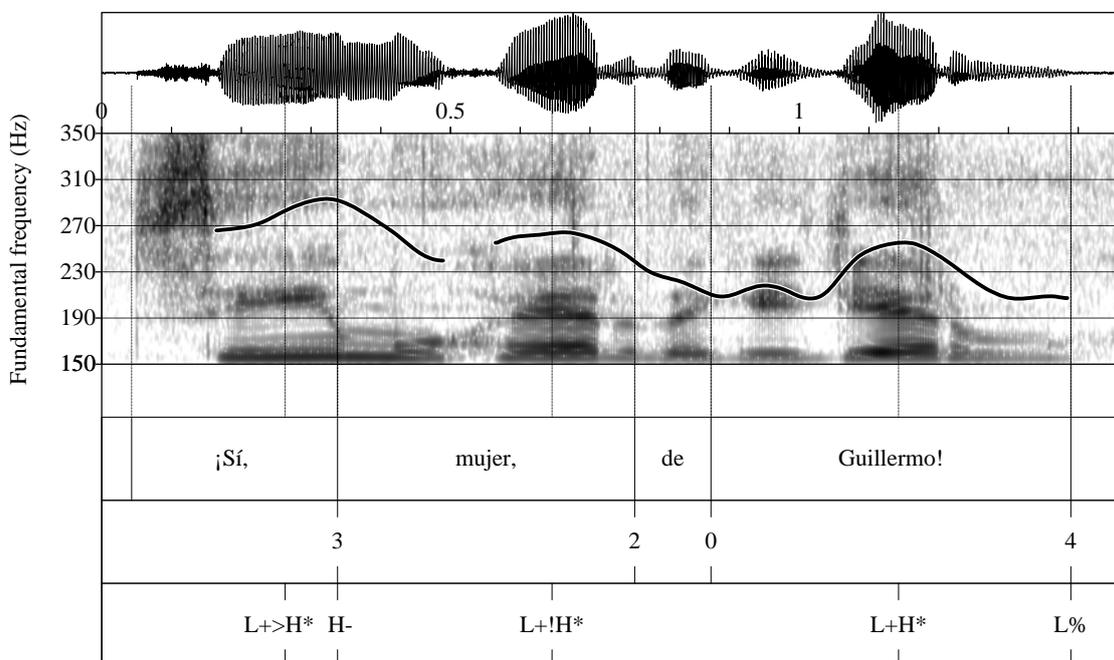


Figure 9: Waveform and F0 trace for the statement of the obvious *¡Sí, mujer, de Guillermo!* 'Yes, woman, Guillermo's [of course]!' produced with a L+H* L% nuclear configuration.

This example is divided into three prosodic units (the second one marked only by a prosodic break, with no accompanying intonational cues, which is transcribed as level 2) and is made up of a series of downstepped accents, starting with the usual initial accent L+(>)H*. The most salient characteristic of this contour is the rather high onset (almost 270Hz in a female voice). As we will see, this high onset is one of the main intonational markers of uncertainty and certain types of pragmatically marked interrogation in Venezuelan Andean Spanish. Another important characteristic is the resetting of downstep throughout the last prosodic unit (*de Guillermo*), which is also typically found in other marked sentence types, as we have seen above. We find the same phrase-final configuration, L+H* nuclear accent and L% boundary tone in Argentina (Gabriel et al. this volume), Ecuador (O'Rourke), and Chile (Ortiz et al. this volume). On the other hand, Castilian (Estebas-Vilaplana and Prieto this volume) has L+H*...LM% as does Mexican (de-la-Mota et al. this volume), Canarian (Cabrera Abreu and Vizcaíno Ortega) and Puerto Rican Spanish (Armstrong this volume).

3.1.2.4. Uncertainty statements

Uncertainty statements, like statements of the obvious, start at a very high pitch, thus providing further evidence for the inclusion of a high initial boundary tone %H in the tonal inventory of Venezuelan Andean Spanish.

Figure 10 shows the example *Puede que no le guste el regalo que le he comprado* 'S/he may not like the present I have bought him/her', which was delivered in a rapid way and may denote shyness as well as uncertainty.

The contour contains two intonation units and starts with a rising accent with a delayed peak in *puede* (L+>H*), followed by a downstepped bitonal accent (L+!H*) in *guste*, a downstepped high accent (!H*) in *regalo* and a high boundary tone (H%). The second unit has a downstepped high nucleus (!H*) in *comprado* and ends with M%, a mid boundary tone. Other dialects with this mid boundary tone in uncertainty statements are Canarian, (Cabrera Abreu and Vizcaíno Ortega this volume) Castilian (Estebas-Vilaplana and Prieto this volume) and Chilean Spanish (Ortiz et al. this volume).

3.2. Questions

3.2.1. Yes-no questions

Yes-no questions in Venezuelan Andean Spanish are characterised by a 'circumflex' nuclear accent L+H* followed by a low final boundary tone L%. We recorded some extra questions to complement the standard corpus because our speakers interpreted yes-no questions such as *¿Tiene mermelada?* (to a shop-keeper: 'Have you got any

jam?') and *¿Puedo entrar?* 'May I come in?' as requests.¹ We have chosen for comparison *¿Comes mandarinas?* 'Are you eating tangerines?', an information-seeking yes-no question which is fully unambiguous for our speakers and which has similar metrical structure to *¿Tiene mermelada?* 'Have you got any jam?' Thus our example and the example used in the standard corpus are fully comparable.

Figure 11 gives an example of an information-seeking yes-no question, *¿Comes mandarinas?* 'Are you eating tangerines?' We analyse the nuclear accent of questions as L+iH*. This 'circumflex' accent is similar to the nuclear pitch accent of Argentinian questions (Gabriel et al. this volume, figure 9, *¿Tiene mandarinas?*), exclamatives and narrow focus statements, but different from that of Canarian Spanish interrogatives (Cabrera Abreu and Vizcaíno Ortega this volume), which lack a clear L target. Our 'circumflex' nuclear accent is also different from that of Mexican declaratives, which is much more reduced in scaling (de-la-Mota et al. this volume).

As we see in the figure, the nuclear accent is on *-ri-*, in *mandarinas*. The pitch is low on the pretonic syllable *-da-*, then rises throughout the stressed syllable *-ri-* (although to a lower level than the prenuclear accent, thus L+iH*), to descend again to the end of the word (L%).

Comparing yes-no questions to segmentally equivalent statements, we can see that the prenuclear accents differ in scaling but not in alignment and thus should receive the same label, L+>H*. The nuclear accents of questions and statements, however, are very different as the nuclear accent of questions shows a clear elbow at the onset of the stressed syllable and is thus better analysed as a L+H* bitonal accent, whereas the nuclear accent of statements lacks this L target and is thus analysed as (!)H*.

However, other patterns are also possible. In long sentences we may encounter some variation in patterns in prenuclear position. For instance, a long question (*¿Puedes venir a la comida, si la hacemos el primer domingo de mayo?*), 'Will you be able to come to the meal if we have it on the first Sunday in May?', would typically be uttered with an alternation of rises (L+>H*) and falls (H+L*) preceding the nuclear accent (L+iH*), as shown in figure 12.

¹ In Andean Venezuelan Spanish and in other language varieties, especially those tending towards use of deferential politeness, 'Do you have the time?' or 'Have you got any jam?' are indeed indirect requests, not simple yes-no questions. In relation to Andean Venezuelan Spanish, Álvarez (2000: 58) says: "Thus, an interrogative sentence at the syntactic level can become at the pragmatic level an indirect order: 'Can you pass me the salt', 'Is there any coffee?', 'Have you not got up yet?' Such questions will be understood as 'Pass me the salt', 'Give me some coffee' and 'Get up'. The same, of course, applies to other languages, including English (e.g. Mey 1998: 142 ff.). [Our translation. "Así, una interrogación en el nivel sintáctico puede convertirse, en el nivel pragmático en una orden indirecta: ¿puedes pasarme la sal? ¿hay café? ¿no te has levantado todavía?. Entendiéndose, estos enunciados, como 'pásame la sal', 'dame café' y 'levántate', respectivamente" Álvarez (2000: 58)].

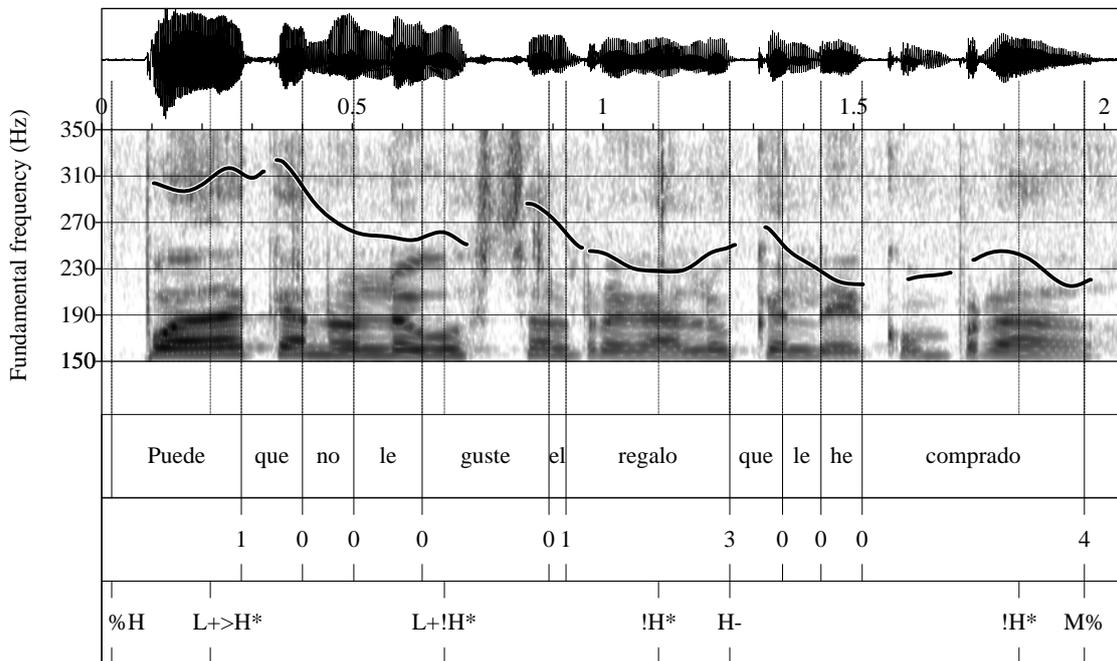


Figure 10: Waveform and F0 trace for the uncertainty statement *Puede que no le guste el regalo que le he comprado* 'S/he may not like the present I have bought him/her' produced with a !H* M% nuclear configuration.

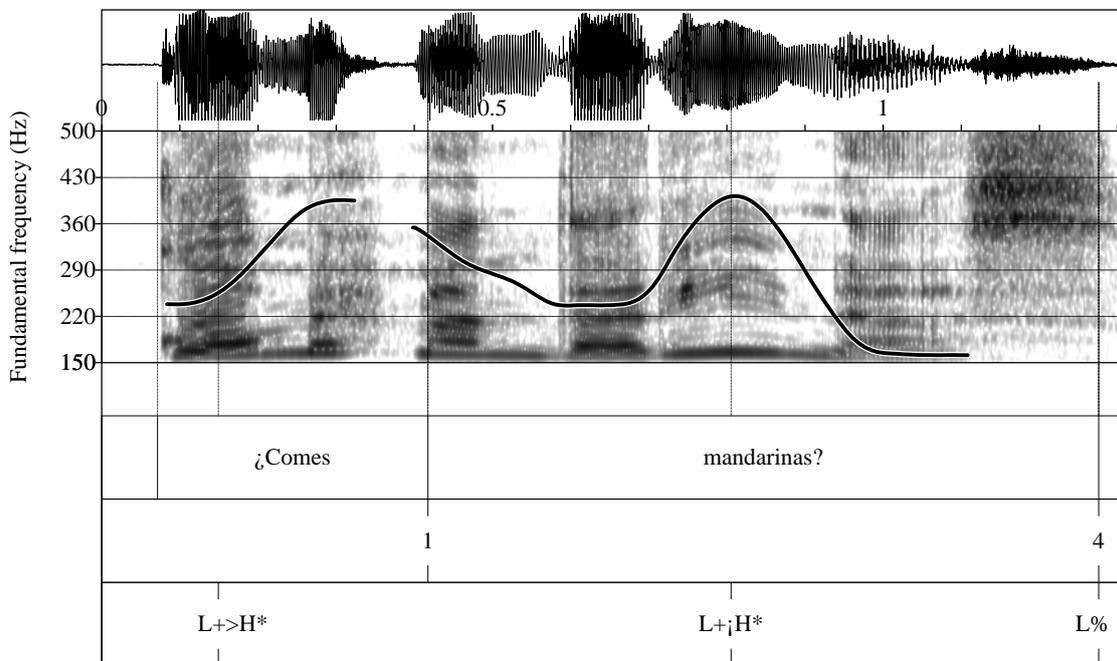


Figure 11: Waveform, spectrogram and F0 trace for the yes-no question *¿Comes mandarinas?* 'Are you eating tangerines?' produced with a L+!H* L% nuclear configuration.

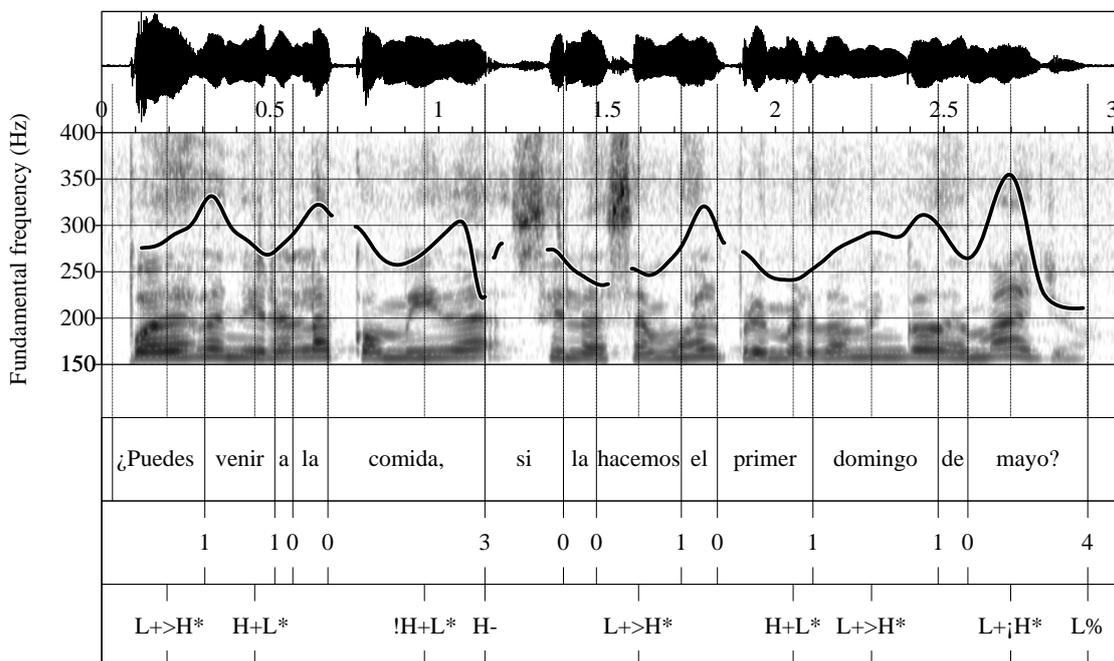


Figure 12: Waveform, spectrogram and F0 trace for the yes-no question *¿Puedes venir a la comida, si la hacemos el primer domingo de mayo?*, 'Will you be able to come to the meal if we have it on the first Sunday in May?' produced with a L+;H* L% nuclear configuration.

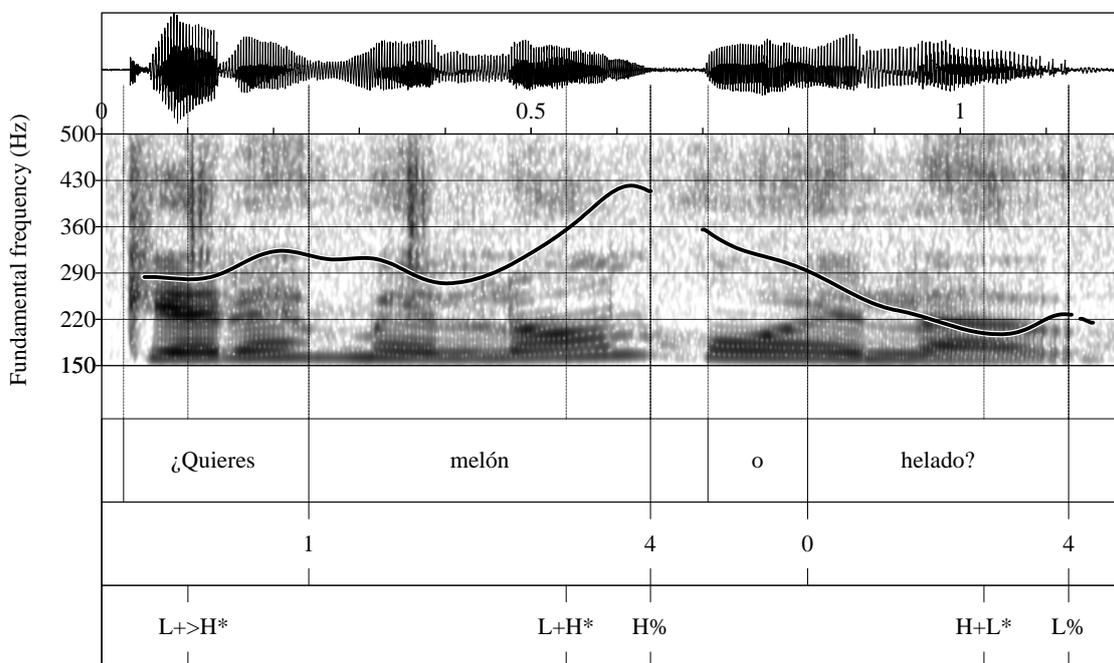


Figure 13: Waveform, spectrogram and F0 trace for the disjunctive question *¿Quieres melón o helado?* 'Do you want melon or ice-cream?' produced with a H+L* L% nuclear configuration.

Figure 13 shows an example of the disjunctive question *¿Quieres melón o helado?* The two tones of the prenuclear accent L+>H* are realized on the word-initial stressed syllable of *quieres*. Then we notice a clear elbow at the onset of the stressed syllable of *melón*, which is followed by a rise throughout, in other words, a L+H* bitonal accent. The high boundary tone at the end of the first part of the disjunct is realized at a higher scaling because of the previous H* tone and is followed by a pause; we have thus given it the simplex label H% (figure 13). The second part of the disjunct receives a H+L* bitonal accent followed by a low tone L% (the slight rise at the end has no phonological value).

On the other hand, a yes-no question such as ‘May I come in?’ has in fact the same pragmatic effect as a request for permission to come in. Figure 14 shows the pitch trace for *¿Puedo entrar?* ‘May I come in?’

This utterance sounds like a neutral request, quite cheerful and pleasant, but not at all overly polite or involved. As in figure 13, this sentence has been realized at a high pitch from the start, %H. We observe a rising prenuclear accent on *puedo* (L+>H*), a very high nuclear accent on *entrar*, ¡H*, and a low boundary tone, L%. An alternative analysis would be to treat the high initial pitch as an allotone of L+>H*, yet we prefer the %H analysis, as this boundary tone is already in the inventory.

Further evidence is provided by another example of a polite request, *¿Me podría decir qué hora es?*, ‘Could you tell me what time it is?’ (figure 15). This request was elicited with a scenario in which the speaker approaches an elderly person to ask the time. Such a scenario would involve a high social distance between the speaker and the addressee so that the tenor of the interaction would be quite formal to start with.

The utterance starts at a high pitch, %H, the first prenuclear accent, in *podría*, is a delayed peak (L+>H*), the second prenuclear accent is an upstepped peak (¡H*), the nuclear accent, on *es*, is also an upstepped peak (¡H*) which reaches over 450Hz, and the boundary tone is low (L%—note that the pitch descends even further but this is not shown in the pitch trace because of the final voiceless fricative). This request does indeed sound very polite, because of the higher initial pitch at the start of the utterance and also because of the cumulative scaling effects of the upstepped accents.

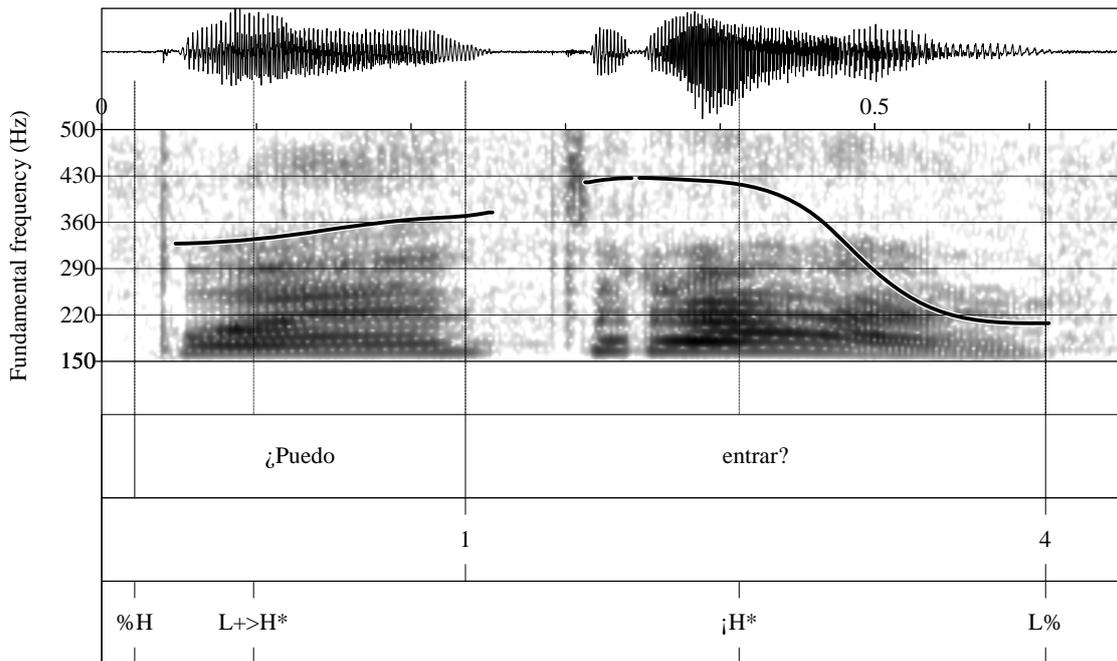


Figure 14: Waveform, spectrogram and F0 trace for the neutral requesting yes-no question *¿Puedo entrar?* 'May I come in?' produced with a ¡H* L% nuclear configuration.

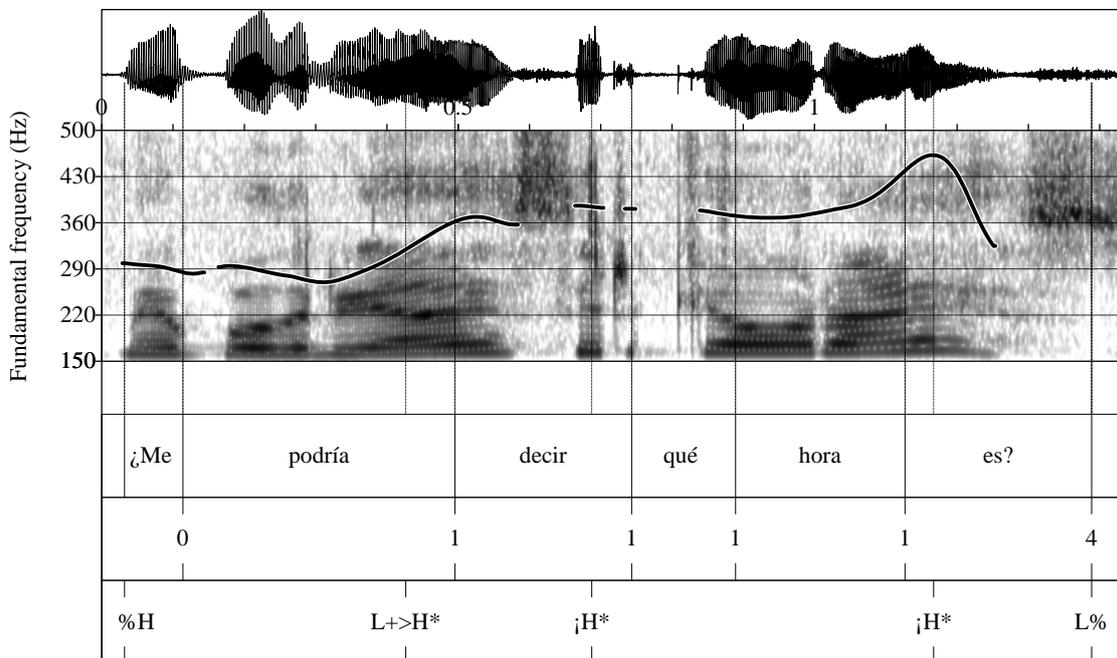


Figure 15: Waveform, spectrogram and F0 trace for the polite requesting yes-no question *¿Me podría decir qué hora es?* 'Could you tell me what time it is?' produced with a ¡H* L% nuclear configuration.

3.2.2. Biased yes-no questions

3.2.2.1. Echo yes-no questions

Clarification questions such as *¿Dijiste que son las nueve?* ‘Did you say it was nine o’clock?’ are also known as ‘echo questions’ and can be uttered with a H+L* nuclear accent followed by a L% boundary tone, as shown in figure 16, although other nuclear accents with different degrees of emphasis are also possible. The H+L* ...L% configuration is similar to the pattern used in Dominican Spanish for most types of questions, including some of the echo yes-no questions (Willis this volume).

A standard echo yes-no question would not be very different from an unmarked wh- question, as we see in the figure. We observe that the pitch starts at a mid level in the speaker’s range (a pitch higher than the final low) The pitch then descends through the pretonic syllable *di-* in *dijiste*, rises on the stressed syllable *-jis-* until the end of the word, and then falls to reach the L target at the onset of son. We analyse this as a phonological L+>H* where the two tones have been compressed phonetically. The nuclear accent is a phonological H+L* which has been similarly compressed by the convergence of two H tones in the monosyllable *las*. Finally, the tone falls until the end of the utterance. We thus label the two prenuclear accents as L+>H*, the nuclear accent as H+L* and the final boundary tone as L%. (See further discussion about whether an initial boundary tone is necessary and if so, of which type, in Section 4).

Echo yes-no questions can also receive a nuclear configuration similar to that of yes-no questions with the pragmatic function of a request (figures 14 and 15). In figure 17, we see an example realized as a simple repetition of the original answer *¿Son las nueve?* ‘it is nine?’ rather than introduced by a verb of saying such as *dijiste* or *me preguntaste* ‘did you ask’.

The question starts rather high. The prenuclear accent is a phonological L+>H* which is compressed onto the accented syllable, the monosyllable *son*. The pitch starts high, %H, the nuclear accent is high, H*, and the final boundary tone is low, L%. We interpret echo questions such as *¿Son las nueve?* as implicit requests for confirmation or repetition. The speaker is requesting either a confirmation or a repetition.² Thus, in our dialect at least, this second type of yes-no echo questions has a pragmatic function and a tonal pattern which are indeed very similar to that of the requests for information or services that we saw in figures 14 and 15.

² There may be a difference between echo questions which are repetitions of a previous question such as ‘[Did you say] it was nine o’clock?’ and echo questions seeking clarification/confirmation of a statement ‘[Is it true that] it is nine o’clock?’ We will investigate this further in future work.

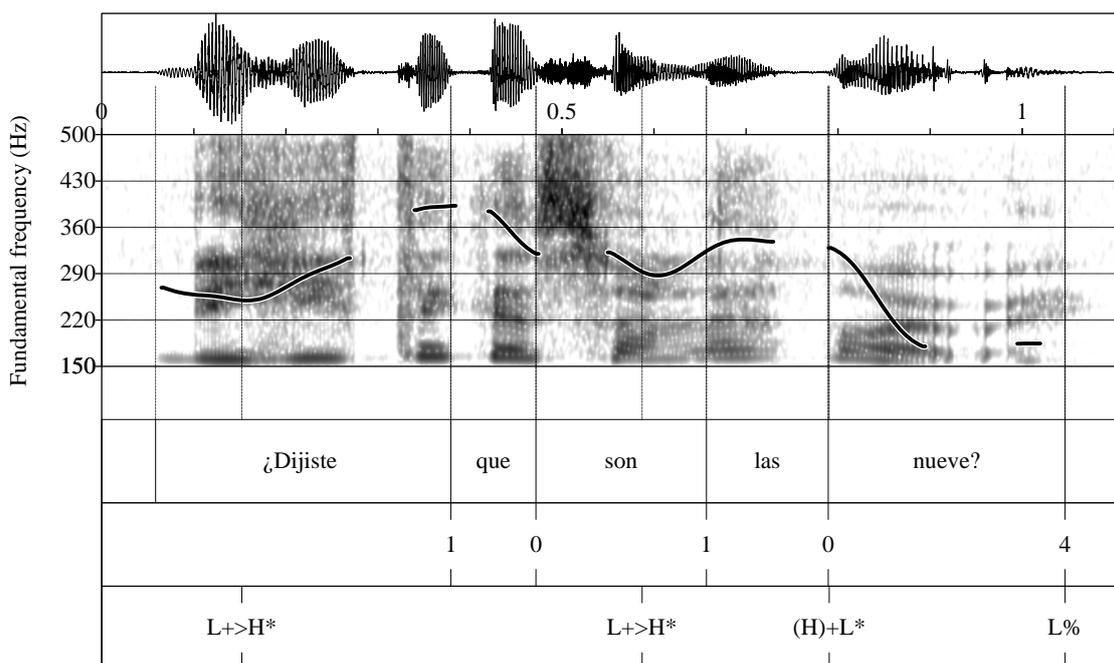


Figure 16: Waveform, spectrogram and F0 trace for the echo yes-no question *¿Dijiste que son las nueve?* ‘Did you say it was nine o’clock?’ produced with a H+L* L% nuclear configuration.

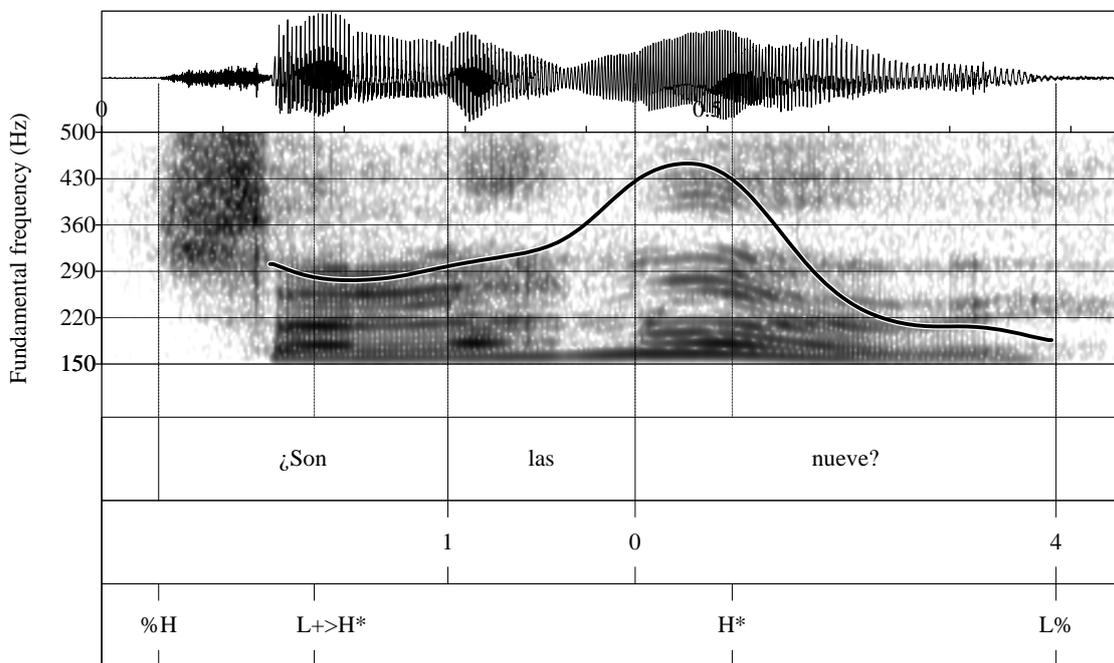


Figure 17: Waveform, spectrogram and F0 trace for the simple echo yes-no question *¿Son las nueve?* ‘Is it nine o’clock?’ produced with an H* L% nuclear configuration.

Counterexpectational echo questions such as *¿Dijiste que no vas a venir?* ‘Did you say that you weren’t coming?’ (figure 18) are also realized with this L+>H*...H* ...L% pattern. Counterexpectational questions such as the example in figure 18 receive a sequence of prenuclear late rising accents, L+>H*, a high nuclear tone, H*, and a low boundary tone, L%. Phonologically, these contours are very similar to the contours of echo questions that correspond to indirect requests for clarification or repetition.

3.2.2.2. Imperative yes-no questions

Imperative questions can be realized with a contour which is very similar to that of polite requests, as we see, for instance, in the case of *¿Se callan?* and *¿Quieren callarse?* ‘Would you please be quiet?’, which is shown in figure 19. We analyse this as %H followed by a prenuclear accent L+>H*, a nuclear accent ¡H* and a L% final boundary tone. Additional testing using an imperative form followed by unaccented clitics, *¿Quieren dármelo/dárnoslo?* ‘Would you please give it to me/us?’ corroborated our analysis of the nuclear tone as ¡H*. Interestingly, this is the same pattern found in Canarian Spanish exclamatives (Cabrera Abreu and Vizcaíno Ortega this volume), although please note that %H does not occur in their inventory and thus the initial pitch levels are significantly different between the two varieties.

It is also possible to utter an imperative question with a downstepped rather than upstepped nucleus. This contour would sound sharper, more authoritative and in command of the situation.

3.2.2.3. Confirmation yes-no questions

Confirmation questions typically have the intonation contour of a yes-no or wh-question, followed by a confirmation tag such as *eh*, *no*, or *verdad* ‘right’. The confirmation tag is generally accented and ends in a H% boundary tone, as we see in figure 20. Venezuelan Andean Spanish shares this high boundary tone with Castilian Spanish (Estebas-Vilaplana and Prieto this volume).

3.2.3. Wh- questions

Information-seeking wh- questions typically have a falling bitonal nuclear accent H+L* followed by a low boundary tone. Figure 21 shows the example *¿De qué pueblo eres?* ‘What village are you from?’

The prenuclear accents of information-seeking wh- questions are similar to those of yes-no questions in that they show a low tone on the pretonic syllable and a high tone on the stressed syllable L+>H* (but spreading onto any posttonic syllables). However, in the relatively frequent cases where the wh- word is initial in the sentence, as in *¿Cuántos limones quieres?* ‘How many lemons do you want?’ in figure 22, *both* tones in the bitonal accent L+>H* are aligned with the stressed syllable of the wh-word, *cuántos* in this case, which we interpret as a case of tonal compression. We thus analyze the first prenuclear accent as L+>H*, the second prenuclear accent as H* (but it may be a phonological L+>H* tone, with the initial L lost in the tonal clash) and the nuclear accent as H+L* followed by L%, a low boundary tone.

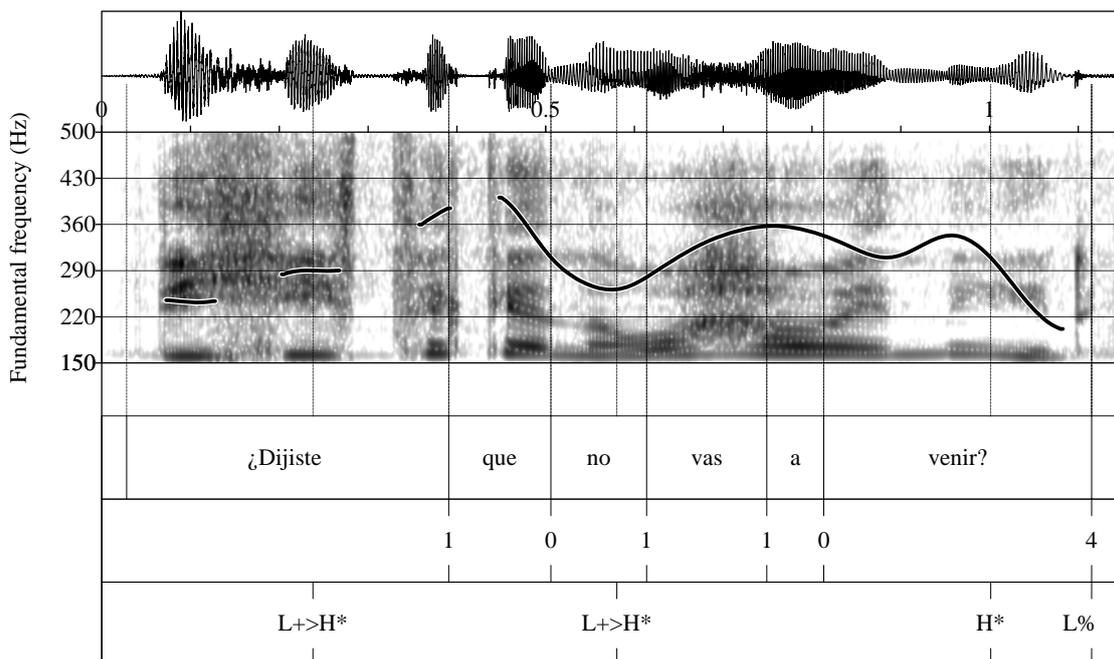


Figure 18: Waveform, spectrogram and F0 trace for the counterexpectational echo question *¿Dijiste que no vas a venir?* 'Did you say that you weren't coming?' produced with a H* L% nuclear configuration.

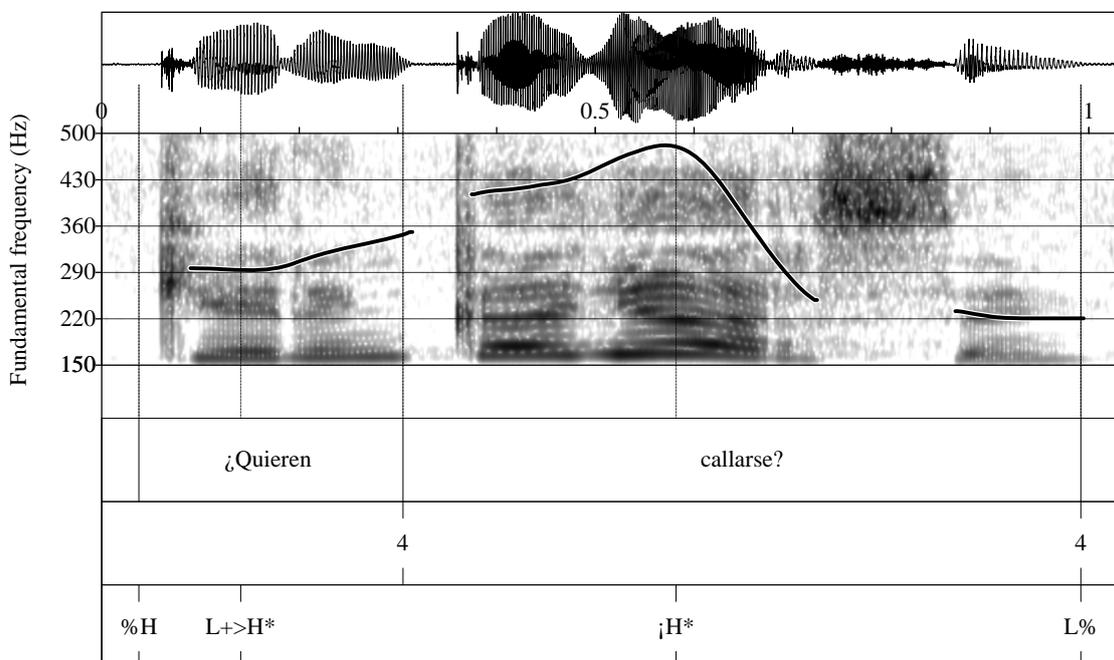


Figure 19: Waveform, spectrogram and F0 trace for the imperative yes-no question *¿Quieren callarse?* 'Would you please be quiet?' produced with a ¡H* L% nuclear configuration.

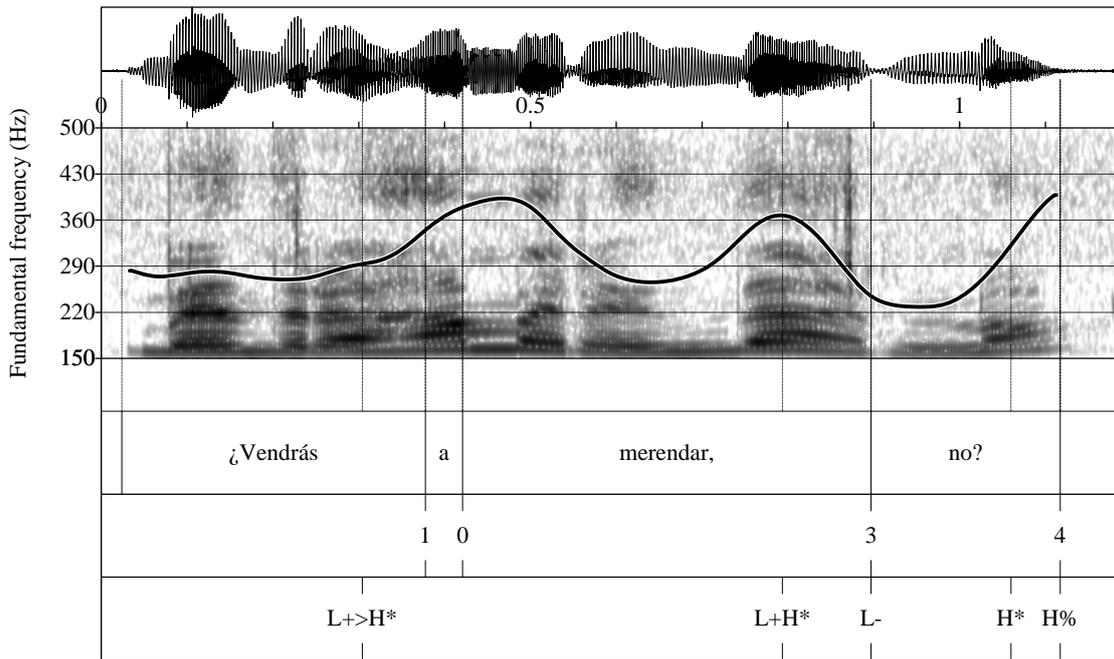


Figure 20: Waveform, spectrogram and F0 trace for the confirmation yes-no question with a negative tag *¿Vendrás a merendar, no?* 'You're coming for a snack, aren't you?' produced with a L+H* L- H* H% nuclear configuration.

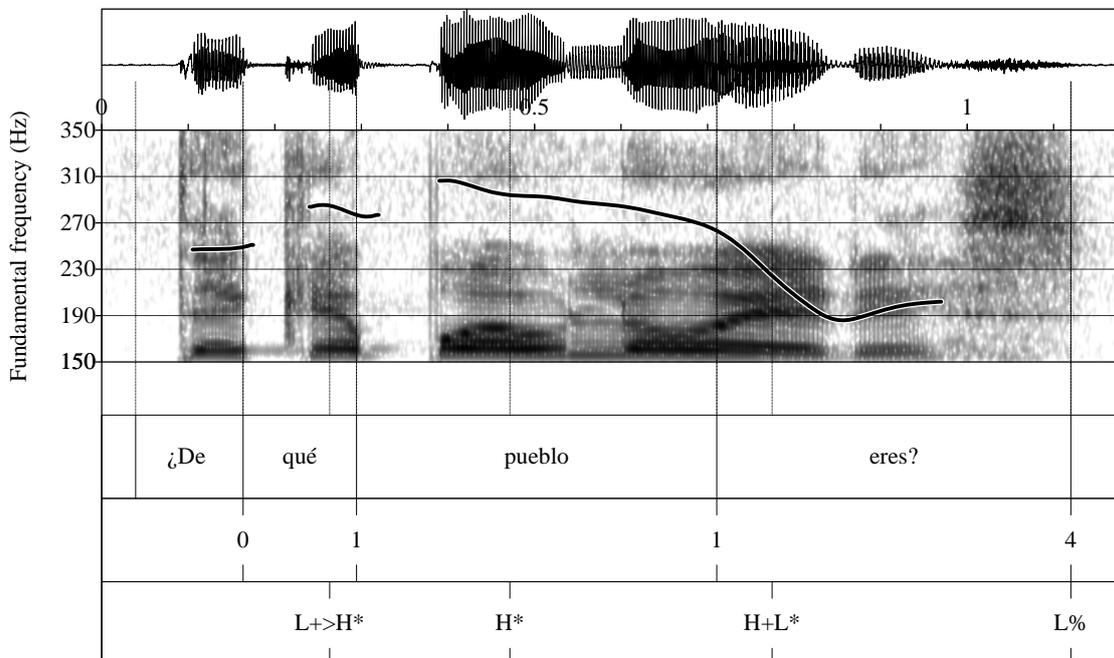


Figure 21: Waveform, spectrogram and F0 trace for the information-seeking wh-question *¿De qué pueblo eres?* 'What village are you from?' produced with a H+L* L% nuclear configuration.

This tonal combination places emphasis on the *wh-* word. The utterance starts at a fairly high pitch, the steep rising prenuclear accent $L+\gt;H^*$ reaches an even higher pitch, the two following accents are falling bitonal $H+L^*$ and the final boundary is low, $L\%$. The nuclear configuration of *wh-* questions is similar to that of Puerto Rican Spanish (Armstrong this volume) but different from that of the other Caribbean dialect described in this volume, Dominican Spanish, where most *wh-* questions do not have a low final boundary tone (Willis this volume). (The Puerto Rican example in this volume, however, is not totally identical to ours as it shows no downstep and has a different prenuclear configuration.)

In this and similar cases of *wh-* questions (see for example figure 15), we do not propose the use of an initial high boundary tone label $\%H$. As we mentioned above, in this dialect there is a clear tendency to compress the two tonal targets of $L+\gt;H^*$ prenuclear accents (and perhaps also other tones as well, but we lack specific evidence so far). It is clear to us that $L+\gt;H^*$ has an allotone in contexts such as the one above with scarce segmental material and/or tonal clashes. This allotone takes the shape that we observe in the pitch trace of figure 14: a level tone realized at a high pitch that rises towards the end.

3.2.4. Biased *wh-* questions

3.2.4.1. Echo *wh-* questions

An example of an echo *wh-* question is *¿Me preguntaste dónde voy?* ‘Did you ask me where I was going?’ in figure 23.

The segmental composition of this example, with the three initial syllables in anacrusis and mostly voiced, allows us to examine in more detail the alignment of the initial prenuclear accent. We observe that the pitch starts at a mid level in the speaker’s range (a pitch slightly higher than the final low), neither high nor low. The pitch then descends to the onset of the pretonic syllable *-gun-* in *preguntaste*, rises on the stressed syllable *-tas-* until the end of the word, holds fairly steady on a plateau made up by consecutive H s ($L+\gt;H^*$ in *preguntaste* and H^* in *dónde* and $H+L^*$ in *voy*) and then falls until the end of the utterance. We thus label the prenuclear accents as $L+\gt;H^*$ and H^* , the nuclear accent as $H+L^*$ and the final boundary tone as $L\%$.

Echo *wh-* questions can also express surprise or incredulity, and this is generally realized through wider tonal excursions and a high tonal boundary. We see an example of a counterexpectational echo question, that is, an echo question conveying strong surprise and incredulity in *¿Qué dices que te dieron?* ‘What did you say they served you?’ (figure 24).

We observe a low-high target associated with the *wh-* word ($L+\gt;H^*$), a peak on *dices* (H^*) and a bitonal nuclear accent in *dieron*, $L+H^*$, which is followed by a high boundary tone $H\%$. The high boundary tone is realized at a very high F_0 , but we analyse it as a simplex boundary tone $H\%$ as it appears right after a high tone (the H^* in $L+H^*$), which triggers phonetic upscaling. Very interestingly, another dialect with circumflex question patterns, Canarian Spanish, also shows a high final boundary in counterexpectational echo *wh-* questions (Cabrera Abreu and Vizcaíno Ortega this volume).

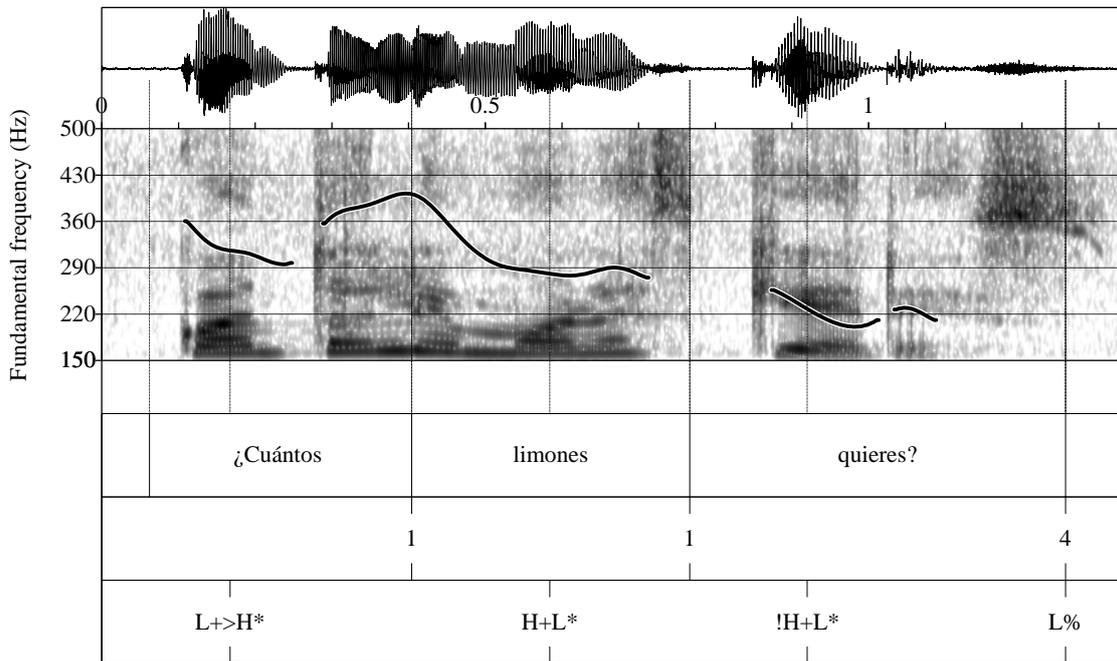


Figure 22: Waveform, spectrogram and F0 trace for the information-seeking wh-question '¿Cuántos limones quieres?' 'How many lemons do you want?' produced with a !H+L* L% nuclear configuration.

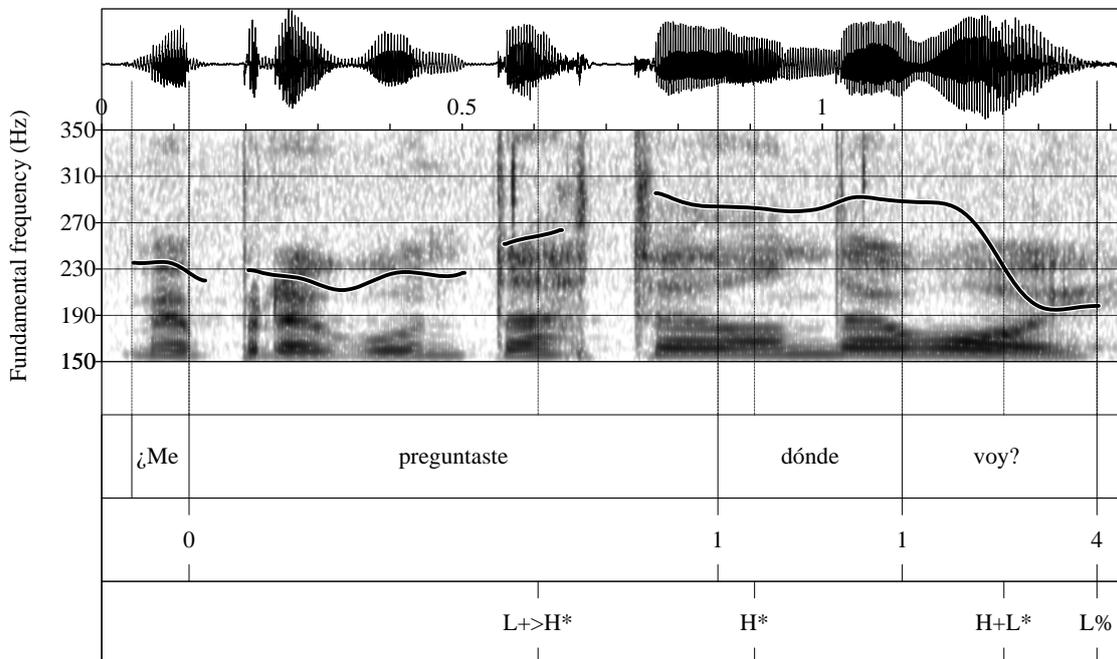


Figure 23: Waveform, spectrogram and F0 trace for the echo wh-question '¿Me preguntaste dónde voy?' 'Did you ask me where I was going?' produced with a H+L* L% nuclear configuration.

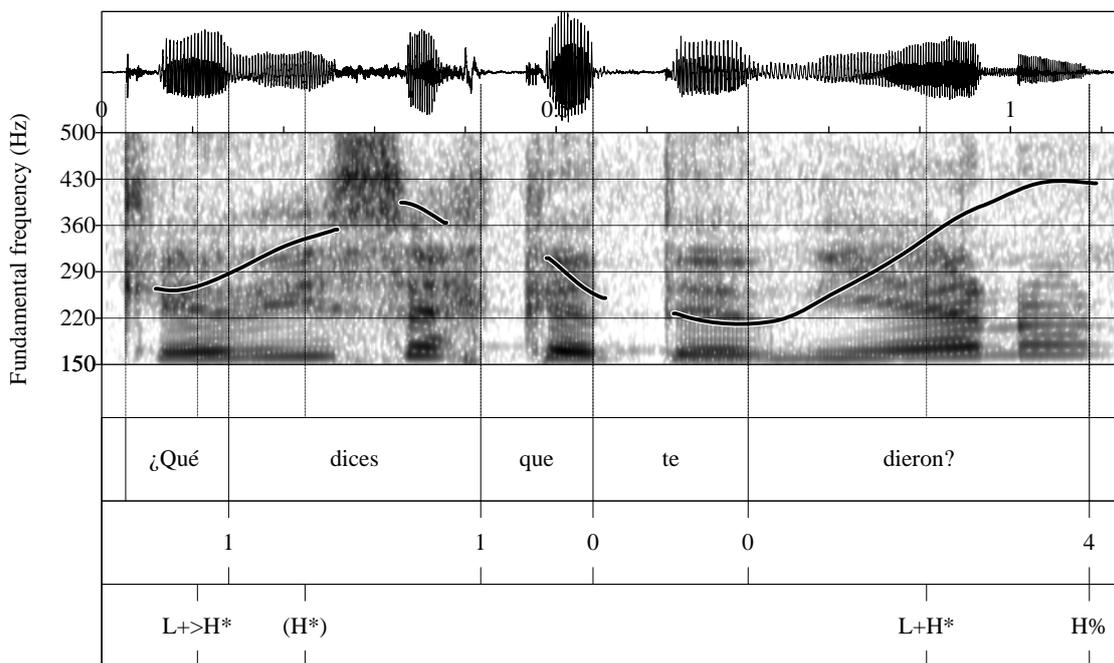


Figure 24: Waveform, spectrogram and F0 trace for the counterexpectational question *¿Qué dices que te dieron?* 'What did you say they served you?' produced with a L+H* H% nuclear configuration.

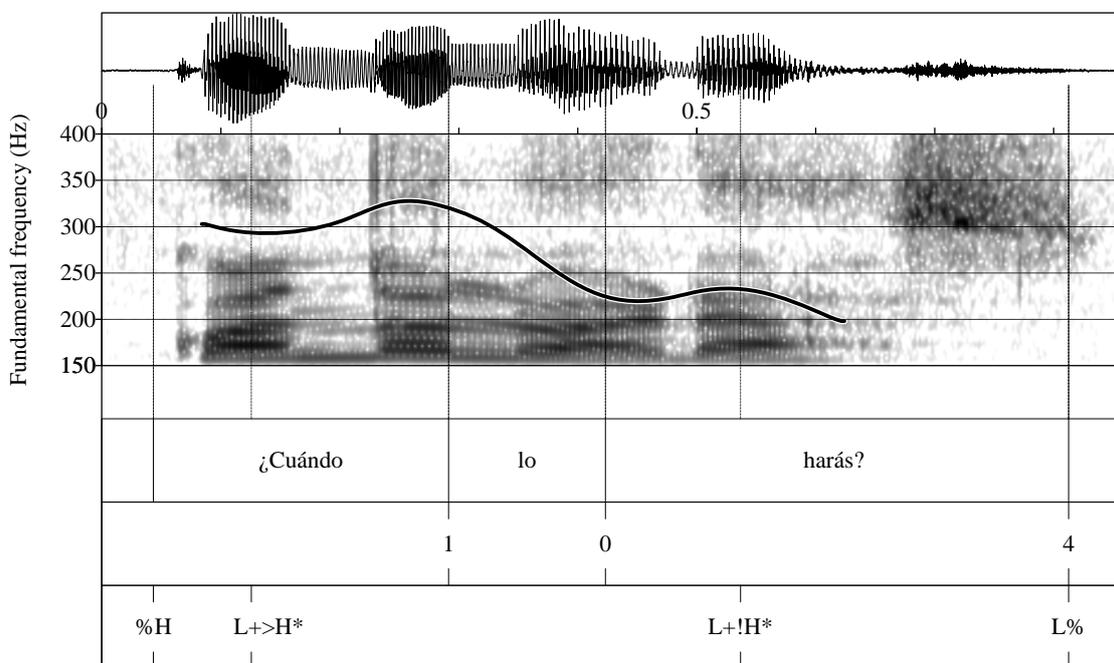


Figure 25: Waveform, spectrogram and F0 trace for the imperative wh-question *¿Cuándo lo harás?* 'When are you going to do it?' produced with a L+!H* L% nuclear configuration.

3.2.4.2. Imperative wh- questions

The sentence *¿Cuándo lo harás?* ‘When are you going to do it?’ (figure 25) is a good example of an imperative wh- question. The pitch starts high, %H, then descends slightly over the first stressed syllable and rises on the posttonic syllable, L+>H*, the nuclear accent is high but downstepped and preceded by a clear L turning point, a L+!H*, and this is then followed by a low boundary tone, L%.

3.3. Imperatives: commands and requests

3.3.1. Commands

A command such as *¡Ven aquí ahora mismo!* can be uttered with different degrees of illocutionary force. A relatively mild example is given in figure 26. We see that even such a relatively short sentence is divided into two tonal units separated by a high tonal boundary. In the first tonal unit, the prenuclear accents are rising, L+>H*, and the following tonal boundary is also high, H%. We transcribe it as H% because it follows a H* pitch accent. As for the second unit, the prenuclear accent is low, L*, and the nuclear accent is high and downstepped, which we transcribe as !H*. Venezuelan Andean Spanish shares the !H* ...L% and H* ...L% configurations with Ecuadorian Andean Spanish, while it shares the L% with one of the examples presented in the description of Canarian Spanish (Cabrera Abreu and Vizcaíno Ortega this volume) and all the analogous Dominican Spanish examples (Willis this volume).

A higher degree of illocutionary force is usually manifested by breaking the utterance into yet more tonal units. The example *¡Ven para acá ahora mismo!* ‘Come here at once!’ is shown in figure 27. The sentence was spoken in a slow, deliberate manner. As for the contour, we observe a rather low pitch overall. The utterance is broken into three prosodic phrases and all the words are lengthened; emphasis here is conveyed mainly by rhythmic means and voice quality. Strong commands in Canarian Spanish (Cabrera Abreu and Vizcaíno Ortega this volume) are also realized with a similar pattern (although their example is not phrased into separate intermediate phrases).

3.3.2. Requests

Requests are typically uttered with the pattern illustrated in figure 28 with *Rellenen este formulario, por favor* ‘Fill in this form, please’. The first prenuclear accent is the usual L+>H*. The second prenuclear accent is H+L* and the nuclear accent is a downstepped high tone !H*. *Por favor* is deaccented: it is uttered in a level tone, partially devoiced and also with creakiness.

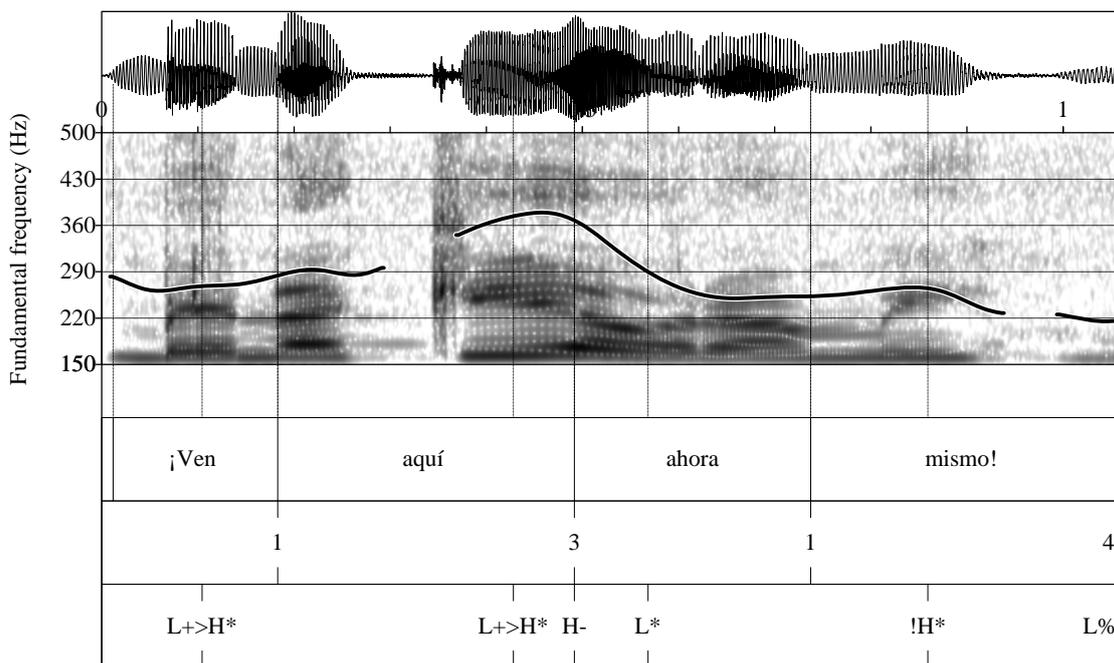


Figure 26: Waveform, spectrogram and F0 trace for the command ¡Ven aquí ahora mismo! 'Come here at once!' produced with a !H* L% nuclear configuration.

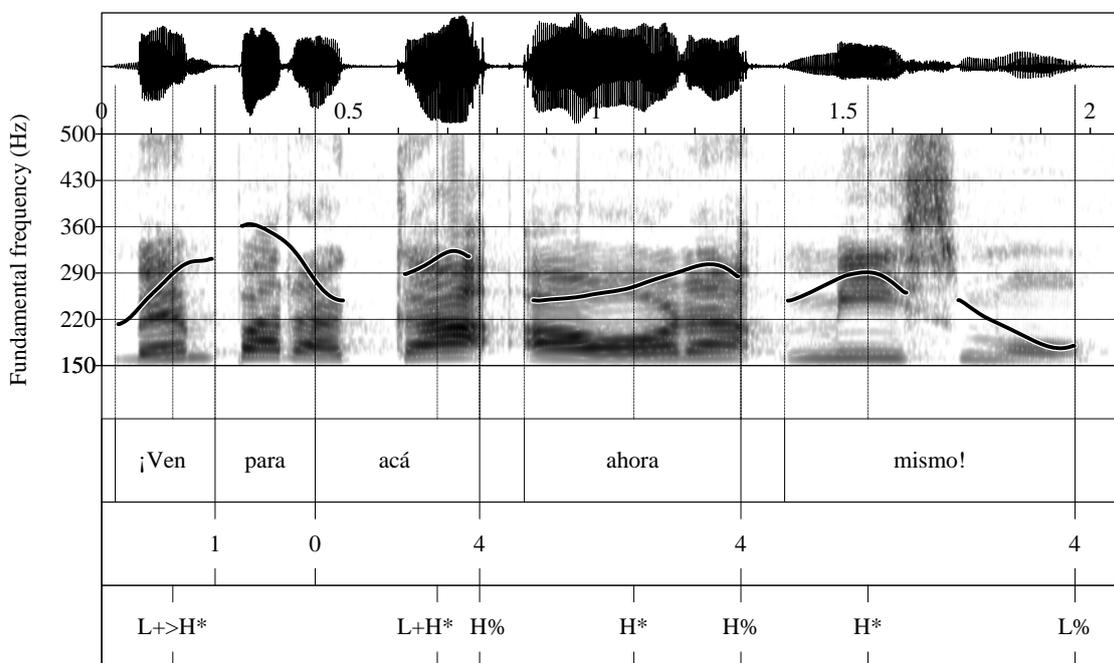


Figure 27: Waveform, spectrogram and F0 trace for the strong command ¡Ven para acá ahora mismo! 'Come here at once!' produced with a H* L% nuclear configuration.

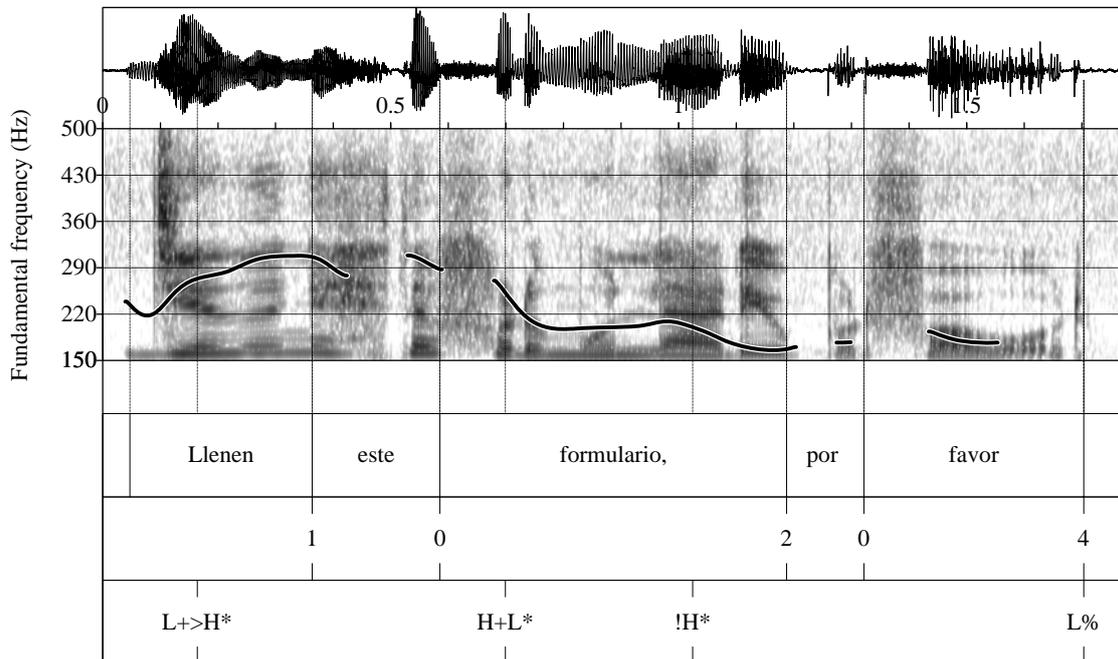


Figure 28: Waveform, spectrogram and F0 trace for the request Llenen este formulario, por favor 'Fill in this form, please' produced with a !H* L% nuclear configuration.

3.4. Vocatives

In Venezuelan Andean Spanish, unlike in Castilian Spanish, sentence-final vocatives are generally deaccented, as is also the case with polite expressions such as *por favor*. On the other hand, calls are uttered with a stylised pattern similar to that of Peninsular Spanish and many other languages. We see two realizations of the example (*¡Marina!*) in figures 29 and 30 respectively. Both examples were elicited with the same prompt: a scenario in which the speaker enters a house, sees no one and calls out the name of the person s/he is seeking one time ('tentative call') and then a second time ('insistent call'). Figure 29 shows an example of a tentative call.

We notice a low target on the pretonic syllable and a high target on the tonic syllable (L+H*), followed by a mid boundary tone M%. Characteristically, the final syllable is also lengthened. We see this same L+H* M% configuration in Castilian (Estebas-Vilaplana and Prieto), Ecuadorian Andean (O'Rourke this volume), Puerto Rican (Armstrong this volume), Chilean (Ortiz et al. this volume) and Mexican Spanish (de-la-Mota et al. this volume).

Figure 30 shows an insistent call. The vocative is uttered here with a final boundary that ends low, and the call sounds more urgent.

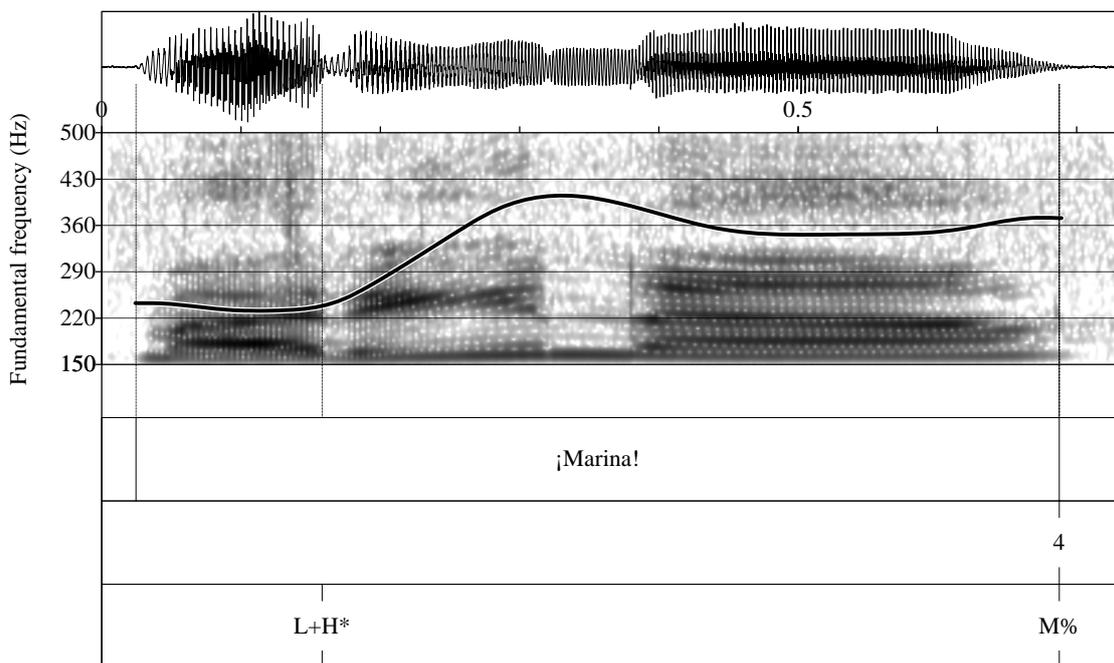


Figure 29: Waveform, spectrogram and F0 trace for the tentative call ¡Marina! produced with a L+H* M% nuclear configuration.

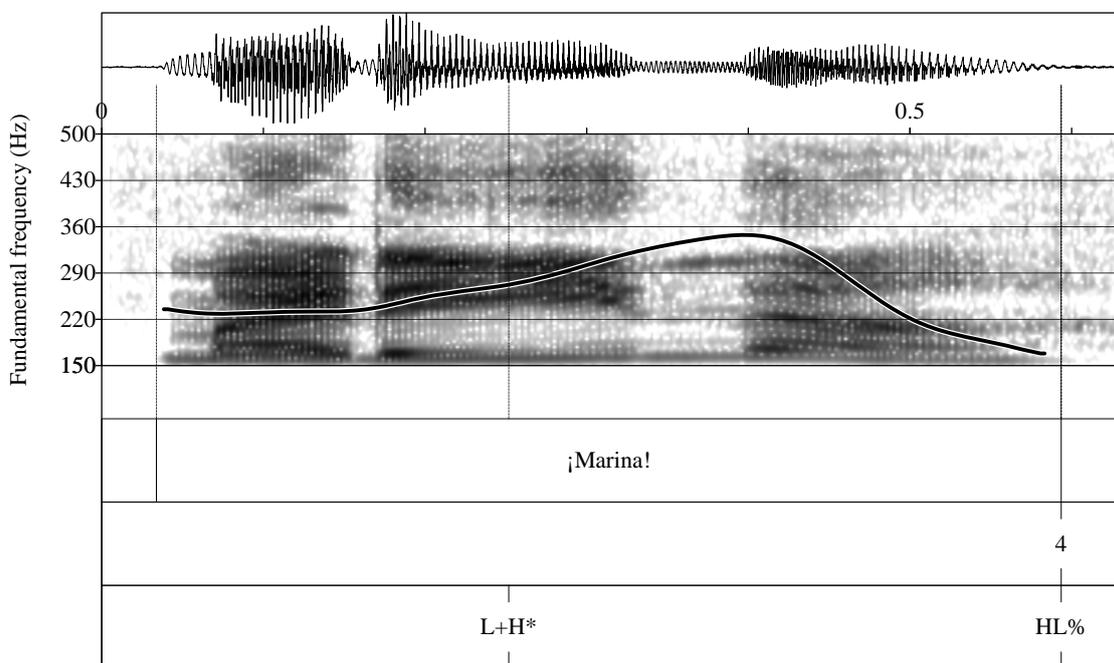


Figure 30: Waveform, spectrogram and F0 trace for the insistent call ¡Marina! produced with a L+H* HL% nuclear configuration.

The pitch starts low and rises throughout the elongated stressed syllable *-ri-*, until the onset of the nucleus of the posttonic syllable *-na*, where it falls to the end of the utterance. The rise-fall movement over the posttonic syllable is analysed as a bitonal boundary tone, HL%.

It would also be possible to analyse this pattern as L+H* followed by a simplex L%. The appearance of movement towards the end of the word would be explained as peak delay caused by the extreme lengthening of the stressed vowel, *-ri-*, to which the length of the intrinsically long nasal in the following syllable is added.

We have analysed the final boundary as HL% (introducing the label in the inventory) for consistency with the analysis of other dialects seen in this volume, such as Castilian Spanish (Estebas-Vilaplana and Prieto this volume), Puerto Rican Spanish (Armstrong this volume) and Canarian Spanish (Cabrera Abreu and Vizcaíno Ortega this volume).

4. Conclusions

The present study offers a first glimpse of the application of ToBI to the study of Venezuelan Andean Spanish as spoken in Mérida, based on the second author's direct experience with this dialectal variety and the empirical data furnished by three speakers. Our goal is to offer an approach to intonational analysis from an AM perspective and contribute towards the design of a pan-Hispanic ToBI system.

Although further production and perception experiments will be needed before we can attempt a more comprehensive analysis of the intonation of this variety, we have thus far reached the following conclusions:

- a) Broad focus declaratives are normally realized with high nuclear accents which are frequently downstepped and with low boundary tones: (!)H*...L%
- b) Yes-no questions take 'circumflex' nuclear configurations, made up of a rising nuclear accent L+H* or L+iH* and a low boundary tone: L+(i)H*...L%
- c) Wh- questions have bitonal falling nuclear accents which can be downstepped and low boundary tones: (!)H+L*...L%
- d) Only surprised counterexpectational questions end in a high boundary tone, L+H*...H%
- e) Polite requests, uncertainty statements and statements of the obvious tend to start with a very high pitch, for which we need a %H label in the inventory.

One of the most distinctive characteristics of Venezuelan Andean Spanish is the intonation of yes-no questions. As we have seen, yes-no questions differ from segmentally identical statements in that questions (i) have a higher pitch overall (a higher 'key'), and (ii) have a bitonal nuclear accent L+H*, which can be optionally upstepped, while statements have a simplex H*. The pitch accent of statements is thus phonologically different from that of yes-no questions.

The nuclear pitch accent of yes-no questions in Venezuelan Andean Spanish is thus analysed as L+(i)H* and is similar to that of exclamative and narrow focus statements.

It is very similar phonetically to the nuclear pitch accent of Argentinian Spanish questions, exclamatives and narrow focus statements (Gabriel et al. this volume), but different from that of Canarian interrogatives (Cabrera Abreu and Vizcaíno Ortega this volume), which lack a clear L target. It is also different from the ‘circumflex’ nuclear accent found in some Mexican declaratives, which is much more reduced in scaling (de-la-Mota et al. this volume).

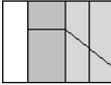
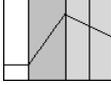
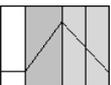
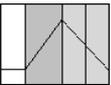
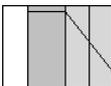
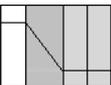
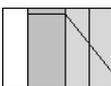
Our data corroborates previous observations in the literature (Mora 1993, 1996; Villamizar 1998) about the phonological differences between questions and statements, the variation found in interrogative patterns and the rarity of the final rise. Indeed, we have found that interrogatives mostly take a ‘circumflex’ or rising-falling pattern, typically $L \rightarrow (i)H^* \dots L\%$ (yes-no questions), $H+L^* \dots L\%$ (wh- questions and echo questions) or $iH^* \dots L\%$ (requests, and exhortative or imperative questions), and that only counterexpectational questions take a final rise $L+H^* H\%$. Counterexpectational questions are thus similar to counterexpectational and echo questions in other dialects, like Castilian Spanish (Escandell-Vidal 1998, Estebas-Vilaplana and Prieto this volume—however, it is worth pointing out that this rise in Castilian Spanish has a bitonal boundary tone $L+H^* LH\%$, in contrast to the monotonal one we have seen in Venezuelan Andean Spanish).

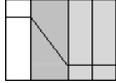
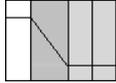
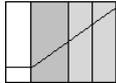
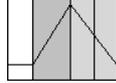
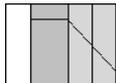
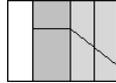
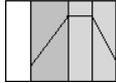
Unlike in other Spanish dialects, we have very limited evidence for the presence of complex tonal boundaries in our inventory as we have identified only one possible boundary tone of this sort, $HL\%$, which occurs in vocative calls. We have found, though, several examples of high initial boundaries ($\%H$), mostly in biased questions, particularly when they have the pragmatic force of a polite request.

Finally, another distinctive feature of Venezuelan Andean Spanish is the lack of evidence for L^* nuclear accents in statements, as these generally have a downstepped high accent in nuclear position. Table 3 summarises the nuclear pitch configurations for the main sentence types in Mérida Spanish.

Table 3: Inventory of nuclear pitch configurations in Venezuelan Andean Spanish and their schematic representations

<i>Statements</i>		
Broad focus statements	$(!)H^* L\%$	
<i>Biased statements</i>		
Narrow focus statements	$L+H^* L\%$	

Contradiction statements	$!H^* L\%$	
Exclamative statements	$L+H^* M\%$	
	$iH^* L\%$	
Statements of the obvious	$L+H^* L\%$	
Uncertainty statements	$(!)H^* M\%$	
<i>Questions</i>		
<i>Yes-no questions</i>		
Information-seeking yes-no questions	$L+(i)H^* L\%$	
Requesting yes-no questions	$iH^* L\%$	
<i>Biased yes-no questions</i>		
Echo yes-no questions	$H+L^* L\%$	
	$H^* L\%$	
Counterexpectational yes-no questions	$H^* L\%$	
Imperative yes-no questions	$iH^* L\%$	
Confirmation yes-no questions	$L+H^* L-$	

<i>Wh- questions</i>		
Information-seeking wh- questions	(!)H+L* L%	
<i>Biased wh- questions</i>		
Echo wh- questions	H+L* L%	
Counterexpectational wh- questions	L+H* H%	
Imperative wh- questions	L+¡H* L%	
<i>Imperatives: commands and requests</i>		
Commands	(!)H* L%	
Requests	¡H* L%	
<i>Vocatives</i>		
Tentative calls	L+H* M%	
Insistent calls	L+H* HL%	

As we have seen, the Spanish spoken in the Andean city of Mérida shares some tonal characteristics with both Ecuadorian Andean Spanish and Puerto Rican Caribbean Spanish. With Ecuadorian Andean Spanish, Mérida Spanish has in common the nucleus and tonal boundary of narrow focus statements and statements of the obvious. With Puerto Rican Spanish, Mérida Spanish shares the low boundary tone in echo and yes-no questions and the nuclear and boundary tone configuration of wh- questions. In other words, the commonality with the other Andean variety lies in a particular type of declarative and the commonality with the Caribbean variety in three types of interrogatives.

On the other hand, there are some very remarkable similarities with Canarian Spanish. This can be explained by the role played by the Canary Islanders in the conquest and colonisation of Venezuela, especially from Ojeda's second expedition

conquest and colonisation of Venezuela, especially from Ojeda's second expedition (1501) and thereafter, in the successive waves of immigration throughout the 19th and 20th centuries. It is true that in the case of the old Province of Mérida, according to the figures presented by Picón Parra (1988), Canary Islanders constituted just 2% of the first settlers, as opposed to 28% Castilians and 23% Andalusians. However, some centuries later, it becomes clear that Canarian features are borrowed through the immigration to the Andean region of Venezuelans from the Caribbean areas, especially from the centre. Indeed, the Spanish spoken in the coastal areas of Venezuela, its Caribbean region, is much permeated by Canarian features through the massive immigration of Canary Islanders to Venezuela between 1840 and 1945. This historical contact as well as modern-day migration flows between the Andean and Caribbean areas may explain the combination of dialectal tonal features that we have identified in the variety of Andean Venezuelan Spanish spoken in Mérida.

References

- Álvarez, Alexandra. 2000. *Poética del habla cotidiana*. Mérida: Universidad de Los Andes.
- Astruc, Lluïsa. 2005. *The intonation of extra-sentential elements*. PhD dissertation, University of Cambridge.
- Asu, Eva L. 2003. *The phonetics and phonology of Estonian intonation*. PhD dissertation, University of Cambridge.
- Baumann, Stefan, Martine Grice and Ralf Benzmüller. 2001. GtoBI. A phonological system for the transcription of German intonation. In Puppel and Demenko (eds.), pp. 21-28.
- Beckman, Mary E., Manuel Díaz-Campos, Julia T. McGory and Terrell A. Morgan. 2002. Intonation across Spanish, in the Tones and Break Indices framework. *Probus* 14: 9-36.
- Beckman, Mary E., and Janet B. Pierrehumbert. 1986. Intonational structure in English and Japanese. *Phonology Yearbook* 3: 255-310.
- Beckman, Mary E., Julia Hirschberg and Stefanie Shattuck-Hufnagel. 2005. The original ToBI system and the evolution of the ToBI framework. In Jun (ed.), pp. 9-54.
- Boersma, Paul, and David Weenink. 2010. *Praat: doing phonetics by computer* [Computer program]. Version 5.1.31, retrieved 4 April 2010 from <http://www.praat.org/>
- Chela Flores, Bertha. 1994. Entonación dialectal del enunciado declarativo de una región de Venezuela. *Estudios Filológicos* 29: 63-72.
- Chela Flores, Bertha. 2002. Patrones entonativos de locutores de radio y televisión. *ARGOS* 36: 35-44.
- Díaz Campos, Manuel, and Julia Tevis McGory. 2002. La entonación en el español de América: un estudio acerca de ocho dialectos hispanoamericanos. *Boletín de Lingüística* 18: 3-26.
- Escandell-Vidal, Victoria. 1998. Intonation and procedural encoding: the case of Spanish interrogatives. In Rouchota and Jucker (eds.), pp. 169-203.
- Estebas-Vilaplana, Eva, and Pilar Prieto. 2008. La notación prosódica del español: una revisión del Sp_ToBI. *Estudios de Fonética Experimental* 17: 265-283.
- Estebas-Vilaplana, Eva. 2009. *The use and realization of accentual focus in Central Catalan with a comparison to English*. Munich: Lincom Europa.
- Frota, Sónia. 1998. *Prosody and focus in European Portuguese*. PhD dissertation, University of Lisbon. Available at <http://members.lycos.co.uk/soniaphd/>, accessed April 5, 2010.
- Gussenhoven, Carlos, Toni Rietveld and Jacques Terken. 1999. ToDI. Transcription of Dutch intonation, version 1.1. Available at <http://lands.let.kun.nl/todi/todi/home.htm/>, accessed November 5, 2009.
- Grabe, Esther. 1998. *Comparative Intonational Phonology: English and German*. MPI Series in Psycholinguistics 7. Wageningen: Ponsen en Looien.
- Jun, Sun-Ah (ed.). 2005. *Prosodic Typology: The Phonology of Intonation and Phrasing*. Oxford: Oxford University Press.
- Ladd, D. Robert. 1990-2008. *Intonational phonology*. Cambridge: Cambridge University Press.

- Méndez, Jorge, Elsa Mora and Nelson Rojas. 2008. Manifestación acústica de las interrogativas absolutas en los Andes Venezolanos, *Language Design. Journal of Theoretical and Experimental Linguistics. Special Issue 2*: 221-229.
- Méndez, Jorge. (submitted). Interacción de los parámetros acústicos duración y frecuencia fundamental en frases declarativas neutras e interrogativas absolutas de los Andes venezolanos.
- Mey, Jacob L. (1998) *Pragmatics. An Introduction*. Oxford, UK & Cambridge, USA: Blackwell.
- Mora, Elsa. 1993. Entonación interrogativa, *Tierra Nueva* 6: 75-87.
- . 1996. *Caractérisation prosodique de la variation dialectale de l'espagnol parlé au Vénézuéla*. PhD dissertation, Université de Provence.
- Mora, Elsa, Jorge Méndez, Nelson Rojas and Manuel Rodríguez. 2006. 'AMPER-VENEZUELA: Informe de avance', Workshop Internacional. III Jornadas Científicas del Proyecto AMPER, Tenerife, España.
- Mosonyi, Esteban. (dir). 1971. *El Habla de Caracas (Estudio lingüístico sobre el español hablado en la capital venezolana)*. Caracas: Universidad Central de Venezuela, Ediciones de la Biblioteca.
- Obregón, Hugo. 1981. *Hacia el estudio de la entonación dialectal del español de Venezuela*. Maracay: Instituto Pedagógico.
- Pierrehumbert, Janet B. 1980. *The Phonetics and Phonology of English Intonation*. PhD Dissertation, Massachusetts Institute of Technology.
- Prieto, Pilar, and Paolo Roseano (coords.) (2009-2010). *Atlas interactivo de la entonación del español*. Available at <http://prosodia.upf.edu/atlasentonacion/>, accessed April 5, 2010.
- Picón Parra, Roberto. 1988. *Fundadores, Primeros Moradores y Familias Coloniales de Mérida (1558-1810)*, Academia Nacional de la Historia, 197-198, Tomos I y II.
- Puppel, Stanislaw, and Grazyna Demenko (eds.). 2001. *Prosody 2000. Speech Recognition and Synthesis*. Poznan: Adam Mickiewicz University.
- Rouchota, Villy, and Andreas H. Jucker (eds). 1998. *Current issues in Relevance Theory*. Amsterdam: John Benjamins.
- Sosa, Juan Manuel. 1991. *Fonética y Fonología de la entonación del español hispanoamericano*. PhD dissertation, Massachusetts University.
- . 1999. *La entonación del español. Su estructura fónica, variabilidad y dialectología*. Madrid: Cátedra.
- Villamizar, Thania. 1998. *Aspectos prosódicos del habla rural de la Cordillera de Los Andes*. MA dissertation, Universidad de Los Andes, Mérida.