Narrow Focus Intonation in Castilian Spanish Absolute Interrogatives

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Abstract
This paper reports the results of an experimental study on the intonation patterns used to communicate narrow focus in Castilian Spanish absolute interrogatives. The results show that three different intonation patterns are used on words in narrow focus in absolute interrogatives. In addition it is found that a tonally marked prosodic boundary following a word in narrow focus and a post-focal reduced pitch range are often used. While this is the first study dedicated to focal intonation in Castilian Spanish absolute interrogatives, a number of studies have addressed focal intonation in Castilian Spanish declaratives. The results of the present study are compared with the results of the studies on declaratives in order to determine what aspects of focal intonation are unique to each sentence type and what aspects are common to focal marking across sentence types.

1. Introduction
In recent years, as more and more detailed studies of Spanish intonation have been carried out, one area of considerable interest has been the ways in which different intonation patterns communicate different meanings. Among the various types of meaning that intonation has been shown to communicate in Spanish, narrow focus (including both new information and contrastive focus) has received considerable attention (e.g. de la Mota 1995, 1997, Face 2000, 2001a, 2001b, 2002a, 2002b, 2002c, 2003, García Lecumberri 1995, Hualde 2002, Navarro Tomás 1944, Nibert 2000, Toledo 1989, Sosa 1999, Willis 2003). To this point, however, narrow focus has been examined (almost) exclusively in declarative utterances. This should not come as a surprise since, in general, aspects of declarative intonation have received the most attention in studies of Spanish intonation, and this background of knowledge about declarative intonation allows for a comparison of non-focal declarative intonation with the focal intonation patterns found as studies are conducted on this topic. While declarative utterances have received the most attention in studies of Spanish intonation, studies on other sentence-types also have been conducted. There has been a considerable number of studies, especially recently, on interrogative intonation in Spanish (e.g. Escandell Vidal 1998, Face 2004, Prieto 2004, Quilis 1993, Sosa 1999, 2003, Willis 2003, Willis 2004). While these
studies have increased our knowledge of Spanish interrogative intonation, this knowledge is still nowhere nearly as developed as that of Spanish declarative intonation. At least partially as a result of this, to this point no study has set out to examine the differences between interrogatives containing an element in narrow focus and non-focal interrogatives. The present study examines precisely this difference in absolute interrogatives in Castilian Spanish.

While the above paragraph refers to “Spanish intonation” very generally, it is important to point out that any study of intonation patterns in Spanish must focus on a particular variety of Spanish. With Spanish spoken in diverse regions of the world, there are considerable differences between the intonation patterns found across the Spanish-speaking world. Even within a relatively small geographic area there can be considerable intonational differences. Within Spain there are numerous intonational differences between regions as can be seen in a number of studies (e.g. Canellada 1941, López Jiménez 1977, Quilis 1989, Sosa 1999) and through ample anecdotal evidence. Sosa (1999), in his monumental study of Spanish intonation, points out that there appears to be far more variation across varieties of Spanish in interrogatives than in declaratives. This finding highlights the need to define the target variety of Spanish to be examined in this study. The present study examines the narrow focus intonation patterns in absolute interrogatives in Castilian Spanish. Castilian Spanish is defined roughly here as the variety of Spanish spoken in the central region of Spain including Madrid and its surrounding areas. Castilian Spanish provides a good target for a study on focal intonation in absolute interrogatives as non-focal intonation patterns in absolute interrogatives have been the target of recent study in Peninsular Spanish (i.e. the Spanish of Spain, on the Iberian Peninsula) in general and Castilian Spanish in particular (e.g. Escandell Vidal 1998, Face 2004, Quilis 1993, Sosa 1999).

The remainder of this paper is organized as follows: Section 2 presents an overview of non-focal intonation in Castilian Spanish absolute interrogatives which will serve as a point of comparison for the focal intonation patterns found in absolute interrogatives in the present study. Section 3 presents the experimental methodology employed to collect the data to be analyzed in this paper. Section 4 presents the experimental results, which are then discussed in Section 5. Finally, Section 6 presents a summary and conclusions.

2. Intonation of Absolute Interrogatives in Castilian Spanish

In comparison with studies on declarative intonation, relatively few studies have investigated the intonation of absolute interrogatives in Castilian Spanish. Some of these studies have included subjects that speak a variety of Peninsular Spanish, but not specifically Castilian Spanish, and have claimed that the data obtained are representative of Peninsular Spanish as a whole, or even of Castilian Spanish. In a study focusing specifically on Castilian Spanish, Face (2004) found that many of the characteristics of absolute interrogative intonation reported in such studies do correspond with the typical Castilian absolute interrogative. In this section I will summarize Castilian Spanish absolute interrogative intonation, though in some cases of the original studies cited did not include speakers of Castilian Spanish.

Navarro Tomás (1944) describes absolute interrogatives as having a high tone at the beginning of the utterance which then descends gradually throughout the utterance until it reaches the utterance’s penultimate syllable, and then rises on the utterance’s final syllable. Describing the pattern in slightly different terms, we can say that there is a rise in fundamental frequency (F0) that begins near the onset of the initial stressed syllable of the absolute interrogative and reaches its peak in a post-
tonic syllable. The F0 then falls throughout the utterance until near the beginning of the final stressed syllable. The F0 remains low throughout the final stressed syllable, and then rises from near the offset of the final stressed syllable until the end of the utterance. This pattern is represented schematically in Figure 1. Illustrations in Quilis (1993) and Sosa (1999) show the same pattern, and Prieto (2004) reports the same, noting that in no case in her data was there a pitch accent other than on the initial and final words of the utterance. Face (2004) reports the same overall pattern as most common for Castilian Spanish absolute interrogatives. He finds, however, that some speakers do produce a pitch accent in medial position, and when this is the case it is similar to that pitch accent found on the initial word of the interrogative: the fundamental frequency (F0) begins to rise near the beginning of the stressed syllable and reaches its peak in a post-tonic syllable. Figures 2 and 3, from Face (2004:70), present pitch tracks showing absolute interrogative intonation by two speakers of Castilian Spanish. The speaker in Figure 2 does not produce a medial pitch accent while the speaker in Figure 3 does. The shading in these figures indicates the stressed syllables.

Figure 1. Schematic representation of the intonation pattern of Castilian Spanish absolute interrogatives.

Figure 2. Pitch track of the utterance ¿Mariana miraba la luna? ‘Was Mariana looking at the moon?’, with no medial pitch accent.
3. Experimental methods

For the present study, five native speakers of Castilian Spanish read a list of contextualized absolute interrogatives. The speakers were all adult speakers from the Madrid area – three females and two males – and were in their 20s and 30s. There were five target interrogatives, each containing three stressed words as well as unstressed words such as articles and prepositions. Each of the five target interrogatives was placed into four different contexts, where each context was a declarative sentence presenting information that preceded the interrogative. The contextualizing sentence and target interrogative were presented as two-line mini-dialogues. The five speakers that participated in this study were presented these two-line dialogues in random order on sheets of paper, and these speakers then read each contextualizing sentence to themselves and then read the interrogative response out loud. Speakers were instructed to read the interrogative as they would in response to the contextualizing sentence. The interrogative responses were recorded digitally and provide the data analyzed in the present study. The recordings were carried out in a quiet office.

Three of the contexts forced a reading of the interrogative with narrow focus on one of the three stressed words. The fourth context for each target interrogative resulted in a reading of the interrogative in broad focus, with no portion of the interrogative highlighted over the others. An example set of contexts is given in (1), where the word in narrow focus is in bold. The set of contextualized interrogatives was produced by each speaker twice, resulting in 40 utterances per speaker (5 target interrogatives x 4 contexts x 2 productions = 40). Therefore, each speaker produced ten interrogatives with broad focus and ten with narrow focus on the initial stressed word, ten with narrow focus on the medial stressed word, and ten with narrow focus on the final stressed word. In total, then, there were 200 productions which were analyzed for this study (40 productions per speaker x 5 speakers = 200), with 50 productions of each of the four focus conditions.

(1) a. Ana tenía dificultades económicas cuando estudiaba en la universidad.
   - ¿Carolina le daba dinero?
b. - Cuando Ana estaba en la universidad, varias personas le daban dinero.
- ¿Carolina le daba dinero?

c. - Carolina le prestaba dinero a Ana cuando estudiaba en la universidad.
- ¿Carolina le daba dinero?

d. - Cuando Ana estudiaba en la universidad no tenía mucho dinero, y por eso Carolina le daba comida y productos domésticos.
- ¿Carolina le daba dinero?

4. Results

The results for the absolute interrogatives in broad focus will not be discussed here, as these results were presented in Face (2004) and the patterns found for broad focus absolute interrogatives in Castilian Spanish are summarized in Section 2 above. In this section I will primary focus on the intonation patterns found associated with the word in narrow focus (i.e. the local marking of focus) in absolute interrogatives. However, in Section 4.4 some consideration will also be given to the intonation patterns found in the non-focal portions of the absolute interrogative (i.e. the global intonation pattern) as well. Given that there are often differences in intonation patterns by position within the utterance, initial focus, medial focus, and final focus will be considered separately.

4.1 Initial focus

Recall that the initial stressed word of a broad focus absolute interrogatives typically bears a pitch accent characterized by a rise in F0 that begins near the onset of the stressed syllable and continues through the stressed syllable, with the F0 reaching its peak in a post-tonic syllable. Three focal intonation patterns are found in absolute interrogatives whose first stressed word is in narrow focus, and while none of the three is far more common than the others, the most common (produced in 21 of 50 cases) is very similar to the pattern found in broad focus absolute interrogatives. That is, the most common intonation pattern on the initial stressed word of the absolute interrogative when in narrow focus is characterized by a rise in F0 that begins near the onset of the stressed syllable, continues through the stressed syllable, and reaches its peak in a post-tonic syllable. In nearly two thirds of these cases (14 of 21), there is a clearly perceptible prosodic boundary – often but not always accompanied by a pause – following the focal word. In these cases the F0 continues to the end of the focal word where the boundary is realized. This prosodic boundary, marked by the continued rise of the F0 to the end of the focal word, has not been reported for broad focus absolute interrogatives, and thus must be seen as a marker of focus. An example of this intonation pattern, including the prosodic boundary, can be seen in Figure 4. In the few cases where this intonation pattern is found on the initial focal word of the absolute interrogative and there is no following prosodic boundary, the F0 peak in the post-tonic syllable is always higher in narrow focus than the initial peak when the same absolute interrogative is in broad focus. While there are too few cases of this pattern not being followed by a prosodic boundary to perform statistical analysis, the higher F0 peak in cases of narrow focus is without exception in the data collected. An example is shown in Figure 5, where there are two productions of the

3 It must be noted that the F0 may rise to the end of the word and there not be a prosodic boundary as well. This is especially true when the first post-tonic syllable is also the final syllable of the word.
same absolute interrogative by the same speaker, once in broad focus and once with
the initial word in narrow focus. It can be seen that the initial F0 peak is higher in the
narrow focus production than in the broad focus production.

Figure 4. Absolute interrogative ¿Carolina le daba dinero? ‘Did Carolina use to give
her money?’ with narrow focus on Carolina.

Figure 5. Absolute interrogative ¿Le dieron el número de vuelo? ‘Did they give her
the flight number?’ produced twice by the same speaker, first in broad focus and then
with narrow focus on dieron.

The second intonation pattern found on the initial word of an absolute
interrogative when in narrow focus also involves a rise in F0 that begins near the
onset of the stressed syllable. In this case, however, the rise does continue into a post-
tonic syllable. Rather the F0 reaches its peak within the stressed syllable and then
falls to the end of the word where a prosodic boundary is realized. As with the
prosodic boundary mentioned above, where the F0 rises to the end of the focal word,
this pattern has not been reported for absolute interrogatives in broad focus and thus
seems to be a marker of focus. An example of this intonation pattern can be seen in
Figure 6.
The third intonation pattern found in on the initial stressed word in narrow focus in absolute interrogatives also involves an F0 rise but is considerably different from the first two patterns. Rather than begin to rise near the onset of the stressed syllable, the F0 is low throughout the stressed syllable and then begins to rise near the end of the stressed syllable so that the rise is primarily in the post-tonic syllable. In some cases the F0 is still falling early in the stressed syllable or is rising by late in the stressed syllable, but the F0 is predominantly low in the stressed syllable where in the first two patterns discussed it is predominantly rising. As with the first intonation pattern discussed above, when this pattern is used the post-tonic F0 rise sometimes rises to the end of the focal word where there is a prosodic boundary. This pattern, with or without the following prosodic boundary, was used in 17 of the 50 productions with narrow focus on the initial stressed word of the absolute interrogative. An example of this pattern can be seen in Figure 7.

With three different intonation patterns used to convey narrow focus in initial position in absolute interrogatives, a natural question that arises is why there is
variation. One possibility is that individual speakers differ in the patterns that they use. In the present study, four of the five speakers employed two of the three patterns in their productions, and the fifth speaker employed all three. Nonetheless, it is also clear that most speakers have a predominant pattern and that speakers differ in which pattern predominates. Three of the four speakers that used two patterns used one of them in at least seven of their ten productions. And the speaker that used all three patterns used one of them in six of the ten productions. In spite of the existence of a predominating pattern for most speakers, all speakers show variation with at least two of their ten productions not using the predominant pattern. It is of considerable interest to determine what factors condition this variation. Given that the data in the present study come from scripted speech, it is impossible to determine whether there is a higher likelihood of use of certain patterns in specific contexts. A future study examining a corpus of spontaneous speech may be able to determine whether certain pragmatic contexts favor one pattern over the others.

4.2 Medial focus

Recall that the medial stressed word of a broad focus absolute interrogative often bears no pitch accent, but when it does, it is characterized by a rise in F0 that begins near the onset of the stressed syllable and continues through the stressed syllable, with the F0 reaching its peak in a post-tonic syllable. The three intonation patterns used to convey narrow focus in initial position in absolute interrogatives are also used to convey narrow focus in medial position (see Figures 8-10). As in initial position, speakers tend to use more than one of the three patterns, as four of the five use at least two of the three intonation patterns to convey focus. However, unlike in initial position, across speakers one pattern is used considerably more often than the other patterns to convey narrow focus. The most common pattern to indicate focus in medial position is a low F0 throughout the stressed syllable followed by a rise beginning near the offset of the stressed syllable. This pattern is used in 38 of the 50 utterances with medial focus, with the other two patterns combining for only 12 occurrences in this position.

Figure 8. Absolute interrogative ¿Carolina le daba dinero? ‘Did Carolina use to give her money?’ with narrow focus on daba.
4.3 Final focus

In final position broad focus absolute interrogatives are characterized by a low F0 throughout the stressed syllable followed by a rise that begins near the offset of the stressed syllable and continues to the end of the utterance. Interestingly, this same pattern is the most common pattern found when the final stressed word of the absolute interrogative is in narrow focus. This pattern was used to convey narrow focus in 37 of the 49 absolute interrogatives with final focus, with the other two patterns combining for only 12 occurrences. Due to a mis-reading by one speaker on one of the absolute interrogatives, there are only 49 instead of 50 absolute interrogatives with final focus.

Figure 9. Absolute interrogative ¿Le dieron el número de vuelo? ‘Did they give her the flight number?’ with narrow focus on número.

Figure 10. Absolute interrogative ¿Manuela la mira por la mañana? ‘Does Manuela look at it in the morning?’ with narrow focus on mira.
Figure 11. Absolute interrogative ¿El marinero examina la nave? ‘Is the sailor examining the boat?’ produced twice by the same speaker, first in broad focus and then with narrow focus on nave.

The other two patterns discussed above that mark narrow focus in initial and medial positions in absolute interrogatives also occur in final position. Unlike in initial and medial positions, however, there is more of a tendency toward consistency among speakers in final position. Two speakers produce the pattern illustrated in Figure 11 for all 10 of their productions with final focus, and a third speaker produces this pattern in 9 of the 10 productions with final focus. For this third speaker, in the one case where the most common pattern is not produced, the F0 begins to rise near the onset of the stressed syllable and then continues into the post-tonic (and to the end of the utterance). This pattern is used more frequently by one of the other speakers, who uses it four times. An example is shown in Figure 12. Finally, one speaker also produces a rise beginning near the onset of the stressed syllable that reaches its peak within the stressed syllable and then falls. While in other positions the F0 fall continues until the end of the word, in final position this is not the case. Rather the F0 falls and then rises again, with the rise continuing until the end of the word (and utterance). In this way the F0 peak in the stressed syllable followed by a fall in F0 seems to mark narrow focus, but the rise to the end of the utterance that is typical of absolute interrogatives is maintained to communicate that the utterance is an interrogative.\(^5\) An example of this pattern is given in Figure 13.

\(^5\) This may be necessary information in Spanish since declaratives and absolute interrogatives are often lexically and grammatically identical. In fact, all utterances in the present study could be interrogatives as well. See Face (2004) for a discussion of the intonational differences between lexically and grammatically ambiguous declaratives and absolute interrogatives.
4.4 Intonation in non-focal portions of absolute interrogatives

While narrow focus is marked through the intonation pattern found on the word in narrow focus, it is possible for it to be marked intonationally in the non-focal parts of the utterance. For absolute interrogatives with medial and final focus, pre-focal portions of the utterance were examined. For absolute interrogatives with initial and medial focus, post-focal portions of the utterance were examined. In absolute interrogatives with narrow focus, the pre-focal intonation pattern shows no differences from the intonation pattern in the same position in absolute interrogatives in broad focus. In initial position when this is also pre-focal, just as is the case in broad focus absolute interrogatives, there is always an F0 rise beginning near the onset of the stressed syllable and continuing into a post-tonic syllable (e.g. Figures 8-13). When there is final focus, the stressed word in medial position either has no pitch accent (e.g. Figure 13) or has a rise beginning at or near the beginning of the stressed syllable and continuing into a post-tonic syllable (e.g. Figure 12). Furthermore, there is no consistent difference in peak height between pre-focal F0 peaks and F0 peaks in broad focus absolute interrogatives, nor is there a tendency for
pre-focal prosodic breaks. Pre-focal intonation, then, shows no differences from the intonation patterns in the same positions in broad focus absolute interrogatives.

While the pre-focal intonation pattern does not differ from broad focus absolute interrogatives, this is not always so for the post-focal intonation pattern. In some cases the post-focal intonation pattern is the same as in broad focus absolute interrogatives. For example, in Figures 9-10 the final stressed word, which is post-focal, has a low F0 throughout the stressed syllable followed by a post-tonic rise to the end of the word. This is exactly the pattern found in final position in broad focus absolute interrogatives as well. In other cases, post-focal pitch accents in final position are have an F0 rise beginning near the onset of the stressed syllable, as in Figures 5-6. Another post-focal intonation pattern that occurs with some degree of frequency is a relatively high and steady F0 throughout the post-focal portion of the absolute interrogative. Examples can be seen in Figures 4 and 8. In Figure 8 the F0 remains steady and high from the end of the focal word until the end of the utterance. In Figure 4, the F0 shows segmental effects, lowering at each consonant, but is otherwise relatively stable. In this case the F0 is not at the top of the speaker’s pitch range, but is still in the upper part of the range.

5. Discussion

The results presented in the preceding section add to our knowledge of the intonational marking of narrow focus in Castilian Spanish. While previous work has investigated the intonational marking of narrow focus in declaratives, this study adds data on absolute interrogatives. It is of interest, then, to consider in what ways the intonational marking of narrow focus is similar and different between these two sentence types.

It is of interest that two of the three intonational patterns used to mark narrow focus in absolute interrogatives correspond with two of the patterns used to mark narrow focus in declaratives. In both sentence types narrow focus can be marked by an F0 rise beginning near the onset of the stressed syllable and continuing into a post-tonic syllable. This is also the pattern found in non-final position in broad focus declaratives and in broad focus absolute interrogatives. The difference between this pattern when used in broad focus and when used to mark narrow focus is that the F0 peak is higher when marking narrow focus in both declaratives and absolute interrogatives. Thus we see that once strategy for marking narrow focus in both sentence types is a higher F0 peak in the pitch accent on the focal word. While this strategy for marking narrow focus is fairly uncommon in declaratives (Face 2002b, 2002c), it is the most common strategy found in the present study in initial position in absolute interrogatives.

The second intonation pattern used to mark narrow focus in both declaratives and absolute interrogatives in Castilian Spanish is an F0 rise beginning near the onset of the stressed syllable, reaching its peak within the stressed syllable, and then falling to the end of the word where a prosodic break is realized. This pattern is quite
common in declaratives (Face 2002b, 2002c), but is the least common pattern for marking narrow focus in absolute interrogatives in the present study.

While these two patterns mark narrow focus in both declaratives and absolute interrogatives, though certainly with different degrees of frequency in each sentence type, perhaps the most frequently used strategy to mark narrow focus in both sentence types cannot be seen with this type of division of intonation patterns. With both types of narrow focus marking F0 rises shared in common between declaratives and absolute interrogatives, it is quite common in both sentence types for them to occur at a prosodic boundary. In the case of the F0 rise that continues into a post-tonic syllable, the boundary is marked intonationally by a high tone at the end of the focal word. In the case of the F0 rise that reaches its peak in the stressed syllable and then falls to the end of the focal word, the boundary is marked intonationally by a low tone at the end of the focal word. While the intonational marking may be via a high tone or a low tone, in both declaratives and absolute interrogatives it is quite common for a word in narrow focus to immediately precede a prosodic boundary. This tendency is not limited only to those intonational patterns for marking narrow focus shared between declaratives and absolute interrogatives. The most common intonation pattern for marking narrow focus in absolute interrogatives, and which has not been reported in declaratives, is a low F0 throughout the stressed syllable followed by a rise in F0 that begins near the offset of the stressed syllable. In many cases the F0 rise in this pattern also continues until the end of the stressed word where a high tone marks a prosodic boundary. Thus while intonation may mark narrow focus in both Castilian Spanish declaratives and absolute interrogatives without the presence of a prosodic boundary after the focal word, the presence of a prosodic boundary – marked intonationally by either a high tone or a low tone – following the focal word is often used in combination with each narrow focus intonation pattern.

One more point is worth making about the marking of narrow focus on the focal word itself. Face (2002b, 2002c) shows that in final position in declaratives, the intonation pattern on the focal word is identical to the intonation pattern on the final word in broad focus declaratives. Similarly, the results of the present study show that when the final word of an absolute interrogative is in narrow focus, it is characterized by a low F0 throughout the stressed syllable followed by a rise beginning near the offset of the stressed syllable and continuing until the end of the utterance – an identical pattern to that found on the final word of a broad focus absolute interrogative. In both declaratives and absolute interrogatives, then, intonation does not distinguish narrow focus from broad focus in final position. This corresponds neatly with the traditional idea that final position in Spanish is more prominent than other positions, and much work on Spanish focus has been from the perspective of studies of word order (e.g. Bolinger 1954, 1954-1955, Contreras 1978, 1980, Hatcher 1956, Zubizarreta 1998). This view is maintained even by some current scholars of intonation. Ladd (1996:191), for example, states that “word order modifications in languages like Spanish and Italian may indirectly achieve the accentual effects that English accomplishes directly by manipulating the location of the nuclear accent.” If this is so, we could say that words in this position receive focus by position when no other word is explicitly marked intonationally as being in narrow focus, and thus there is no need for intonation to mark focus. If this is so, there is a complementary relationship between word order and intonation in the marking of narrow focus in Castilian Spanish (cf. Face and D’Imperio 2002).

While the bulk of this paper has dealt with the intonation pattern on the word in narrow focus, some consideration was also given to the non-focal portion of the
utterance, and in this there are also some commonalities between declaratives and absolute interrogatives. First, the results of the present study show that for absolute interrogatives the intonation pattern on the pre-focal portion of the utterance is the same as in a broad focus utterance. This is largely the same as what has been reported for declaratives as well, though Face (2001a, 2002b) does find a small yet significant difference in pre-focal F0 peak height and some tendency for a pre-focal prosodic boundary in declaratives. While the use of a prosodic boundary does change the pre-focal intonation pattern when this is used, in the majority of cases the intonation pattern is the same as in broad focus declaratives, with a difference in peak height being the only difference between otherwise identical intonation patterns in pre-focal position and in broad focus declaratives. Therefore what declaratives and absolute interrogatives have in common is a general lack of pre-focal marking of narrow focus.

While pre-focal intonation is most often identical to broad focus intonation in both sentence types, declaratives and absolute interrogatives share a post-focal marking of narrow focus that distinguishes post-focal intonation from the intonation of broad focus utterances. In both declaratives and absolute interrogatives, the post-focal portion of the utterance often shows a compressed pitch range (Navarro Tomás 1944, de la Mota 1995, 1997, Face 2001a, 2002b). In declaratives this compressed pitch range results in the F0 remaining in the low end of the speaker’s pitch range, while in absolute interrogatives it results in the F0 remaining in the upper end of the speaker’s pitch range. This compressed pitch range prevents the remainder of the utterance from having prominent pitch movements, and thus results in the focal word having the final prominent pitch movement of the utterance.9 It is worth noting that the location of the reduced pitch range (i.e. either high or low in the speaker’s pitch range) corresponds with the F0 at the end of the utterance. Therefore, in declaratives, where the F0 falls to a low point at the end of the utterance, the post-focal reduced pitch range is low; in absolute interrogatives, where the F0 rises to a high point at the end of the utterance, the post-focal reduced pitch range is high. While future studies will need to determine the mechanism by which such an influence is exerted, it appears that the utterance final tone influences the location of the reduced pitch range in post-focal position.

6. Conclusion

Throughout this paper I have examined the intonation patterns used to convey narrow focus in Castilian Spanish absolute interrogatives. The most common intonation pattern is a low F0 throughout the stressed syllable followed by a rise in F0 beginning near the offset of the stressed syllable. This is identical to the pattern found in final position in Castilian Spanish broad focus absolute interrogatives, but is unique to interrogatives from what we know of Castilian Spanish intonation at the present time. The other intonation patterns used to mark narrow focus in absolute interrogatives, however, are also used to mark narrow focus in declaratives. The first of these is an F0 rise beginning near the onset of the stressed syllable and continuing into a post-tonic syllable. The second is an F0 rise beginning near the onset of the stressed syllable, reaching its peak within that syllable, and then falling to the end of the word in narrow focus. While these two patterns are used in both declaratives and absolute interrogatives to mark narrow focus, perhaps the most common manner to

9 Face (2002b) argues that pitch accents are present in some cases within the reduced pitch range. In the absolute interrogatives in the present study, however, no F0 movements within the compressed pitch range can be clearly attributed to pitch accents. Further study will be needed to determine definitively whether pitch accents may be present in this post-focal reduced pitch range.
mark narrow focus is the presence of a prosodic boundary – marked intonationally by either a high tone or a low tone – immediately following the word in narrow focus. This prosodic boundary is common in both declaratives and absolute interrogatives, and can follow each focal intonation pattern that occurs on the word in narrow focus.

In addition to the intonation pattern on a word in narrow focus, the present study also showed that in some cases there is a reduced pitch range that is maintained throughout the post-focal portion of the absolute interrogative. This reduced pitch range is high in the speaker’s pitch range. A similar reduced pitch range is often found in the post-focal portion of declaratives, but occurs in the lower portion of the speaker’s pitch range. It seems, then, that the nature of the location (i.e. either high or low) of the reduced pitch range within the speaker’s overall pitch range may be affected by the utterance-final F0 level, given that this is high in absolute interrogatives and low in declaratives.

While the present study adds to our knowledge of absolute interrogative intonation and narrow focus intonation in Castilian Spanish, there are still a number of topics to be addressed by future studies. One question that must be addressed in future studies is the variation in focal intonation patterns. While this study reports three intonation patterns to mark narrow focus in Castilian Spanish absolute interrogatives, it is unclear what factors would lead to the election of one of these patterns over the others. In the present study where the context is quite limited, it is impossible to address this question. Future corpus-based studies using spontaneous speech, however, may be able to determine when each of these intonation patterns is used to mark narrow focus in absolute interrogatives. Another topic for future studies to consider is how to analyze these intonation patterns within a model of intonational phonology. The present study reports the intonation patterns used to convey narrow focus in absolute interrogatives but proposes no analysis of those patterns. Future studies will need to consider how best to analyze the pitch accents, prosodic boundary markings, and pitch range reduction from a phonological perspective. Finally, it is of interest for future studies to examine the intonation patterns used to mark narrow focus in other sentence types in order to better understand the system for marking narrow focus in Castilian Spanish and what intonation patterns are used in multiple, or even all, sentence types.

References

de la Mota, Carme. 1995. La representación gramatical de la información nueva en el discurso. Doctoral dissertation, Universitat Autònoma de Barcelona.


