

Focal Pitch Accents and Subject Positions in Spanish: Comparing Close-to-Standard Varieties and Argentinean *Porteño*

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Abstract

In Spanish focus can be signaled by both prosodic and syntactic strategies. However, it remains controversial how these two components of grammar depend on one another. Based on the analysis of experimental data it is argued that in Spanish focus is primarily expressed through intonational means, namely the location of nuclear stress. Unlike most Spanish dialects, Argentinean *porteño* allows for a tonal distinction between neutral and contrastive focus in IP-final position. In other positions focus is expressed through increased F0 values and/or syllable-internal early peak alignment (EPA). As is shown with the example of non-clefted declaratives containing a focused subject ($_{F}[S]_{F}$) reordering of constituents can optionally apply (yielding the non-canonical ordering $VO_{F}[S]_{F}$). Movement as an additional strategy of focus marking is avoided in sentences with a full DP object, but strongly preferred with a clitic object ($CL+V_{F}[S]_{F}$). The variation found in the data is best accounted for by assuming that the structures which are built up according to the Minimalist target/probe approach and associated with all of the possible F0 contours undergo an OT evaluation following the insights of the overlapping constraints model.

1. Introduction

Cross-linguistically focus can be expressed by syntactic, morphological and/or phonological means. The latter comprise phonological phrasing and relevant segmental cues as well as intonation, especially the placement and shape of (focal) pitch accents (e.g. [8, 11, 15] for Spanish). Cross-linguistically the phonological realization of focus seems to play a predominant role, given the fact that languages without any prosodic reflex of focus are extremely rare (e.g. Wolof using verbal affixes in combination with syntactic strategies [13]). Spanish is one of the languages that combine syntactic and intonational means. Interestingly, focus marking is quite homogenous across dialects, in sharp contrast to other areas such as segmental phonology where the different varieties display crucial differences. Taking into account a subset of European and American dialects (Central-Northern Peninsular and Catalanian Spanish as well as the urban dialects of San Salvador, Irapuato (Central Mexico), Bogotá, and Buenos Aires), the only variety that crucially differs from the others with respect to the intonational expression of focus is the prestigious Argentinean *porteño* dialect, originally the standard variety of certain Buenos Aires quarters (e.g. [4]) and nowadays spoken in the whole coastal region down to Southern Patagonia. For the present purpose the dialects mentioned above except for *porteño* are summarized under the term ‘close-to-standard’ (CTS) varieties. It should be pointed out, however, that this generalization only holds for the intonational expression of focus.

This paper investigates the prosodic and syntactic cues of focus in non-clefted declarative constructions with a focalized subject and a full DP or clitic direct object. Special emphasis is given to the intonational differences between *porteño* and CTS varieties.

2. Intonational and syntactic cues

Concerning the expression of focus Spanish exhibits the following general properties.

2.1. Spanish intonation and focus marking

The intonation of Spanish CTS varieties is characterized by rising pitch movements that differ in their alignment properties. I adopt Hualde’s [11] proposal of an underlying pitch accent $/(LH)^*/$ which generally surfaces as a ‘late rise’ (default realization L^*H), but is realized as an ‘early rise’ in words bearing final stress (e.g. *compró* in (1a)) and at the end of the intonational phrase (IP, e.g. *diario* in (1a,b)). In addition I assume a second underlying pitch accent $/LH^*/$ that marks contrastively focused constituents and surfaces as LH^* in all positions (1b) [8]. In addition post-focal pitch accents can undergo optional deletion (post-focal deaccentuation, in (1b) indicated by crossed out letters, e.g. [5]). Capitalization indicates nuclear stress; metrically strong syllables (as anchoring points for pitch accents) are underlined.

- (1) a. ‘What happened?’
 $_{F}[María compró un \underline{DI}Ario]_{F}$. $_{F}[SVO]_{F}$
 / (LH)* (LH)* (LH)* /
 L^*H LH^* LH^*
 ‘Mary bought a newspaper.’
 b. ‘Julia bought a newspaper.’ (contrastive focus)
 $_{Foc}[MaRí]_{Foc} compró un \underline{di}ario$. $_{F}[S]_{F}VO$
 / LH^* (LH)* (LH)* /
 LH^* ~~LH^*~~ ~~LH^*~~
 ‘(No.) MARY bought a newspaper.’

It should be pointed out that – as a consequence of the neutralization effects mentioned above – in Spanish CTS varieties the distribution of pitch accents in (1a) *María compró un DIARIO* is not only compatible with a broad focus reading, but also with an IP-final narrow neutral and contrastive focus interpretation (i.e. it is felicitous in the contexts ‘What did Mary buy?’ and ‘Mary bought a book, didn’t she?’).

The intonational system of *porteño* differs from Spanish CTS dialects in several respects: First, pre-nuclear accents are regularly realized as high tones H^* (e.g. [4, 15, 16]; see examples (4) for illustration); second, the final contour of both broad focus declaratives and constructions with a (neutrally) focused constituent in IP-final position is obligatorily realized

as a so-called *long fall* [12], consisting of the IP-final ‘allotone’ HL* plus a low boundary tone L%. Given the fact that all pre-nuclear accents are characterized by a tonal movement reaching its peak within the time limits of the metrically strong syllable, focus in situ cannot be signaled by means of an alignment contrast L*H vs. LH* as is the case for CTS varieties. The intonational strategies used by *porteño* speakers in order to compensate for this ‘disadvantage’ are treated in detail in section 3.2, below.

2.2. Syntactic marking of $F[S]_F$ in non-clefted declaratives

Syntactically the varieties of Spanish discussed here can all be characterized as SVO dialects, i.e. varieties that do not accept VSO as a felicitous answer to the question ‘What happened?’ (* $F[Compró María un Diario]_F$). In SVO dialects the unmarked subject position is post-verbal as long as there is no further argument present in the structure (e.g. unaccusative verbs $F[Llegó María]_F$ ‘Mary arrived’, intransitive use $F[Baila mi sobrina]_F$ ‘My niece is dancing’), but the subject is pre-verbal as soon as another full XP constituent is present VP-internally ($F[Mi sobrina baila el papel del cisne negro]_F$ ‘My niece is dancing the role of the black swan’).

Most scholars adopting a derivational or OT perspective claim that (neutrally) focused initial subjects as in (2) are ungrammatical and predict obligatory movement of the presupposed material to a higher position, yielding structures like (3). $F[S]_F VO$ is claimed to be only acceptable with a contrastive focus reading, e.g. [14, 17].

- (2) a. $F[MaRí]_F compró el diario.$ $F[S]_F VO$
 b. $F[MaRí]_F lo compró.$ $F[S]_F CL+V$
- (3) a. $Compró el diario F[MaRí]_F.$ $VO F[S]_F$
 b. $Lo compró F[MaRí]_F.$ $CL+V F[S]_F$

In intonational studies, on the contrary, $F[S]_F VO$ is generally taken to be perfectly acceptable with a neutral focus reading, e.g. [7, 11, 15]. It is clear that such diverging acceptability judgments should be checked with empirical data.

3. Methodology and results

The analysis is based on data from recordings made with a total of 17 speakers of CTS and one of *porteño* Spanish, comprising answering to questions (elicitation of various focus structures), reading of given sentences, and recording of spontaneous speech [8]. For the present purpose all non-clefted declaratives with a focused subject and a full DP or clitic object were taken into account, as well as all instances of focal pitch accents occurring in the data produced by the (female) *porteño* informant, the latter providing a deeper insight into the special strategies of intonational focus marking in *porteño*.

3.1. Subject positions in SVO dialects

No difference is made by the speakers between neutral and contrastive focalization insofar as neither the use of cleft constructions (type: *Es Blancanieves la que ...*) nor the preverbal position of the focused subject (type: $F[S]_F VO$) are restricted to contrastive contexts. Despite the predictions made in the literature (see 2.2) all SVO varieties including *porteño* Spanish display a strong tendency towards the preverbal realization of $F[S]_F$ in constructions with full DP objects regardless of the focus type (neutral or contrastive). However, $F[S]_F$ typically occurs in a post-verbal position when there is a clitic object. See [8] for a detailed presentation of the output distributions.

3.2. Focal pitch accents in *porteño* Spanish

The *porteño* data consist of 52 utterances, 27 of which contain a (contrastively or neutrally) focused XP. In 17 of these cases the narrow focused XP occupies the clause-final position, among which 6 utterances display a contrastive reading. In none of these cases a *long fall* is realized (see (4b) for an example). Consequently, the prosodic representation of contrastive focus through H* is unambiguous in this position. The difference between IP-final narrow and broad focus, however, cannot be signaled through the shape of the relevant pitch accents (the final nuclear accent being realized as HL* in both cases). But as in CTS varieties, intermediate phrasing with a high phrase accent (H-) placed at the end of the presupposed material can mark the extension of the focus domain (4a,b).

- (4) a. ‘To whom does Snow White hand over Tarzan?’
 Blancanieves entrega a Tarzán) $F[a los enaÑitos]_F$.
 H* H* H* H- HL*
- ‘Snow White hands over Tarzan to the 7 dwarfs.’
- b. ‘Snow White hands over Tarzan to the 40 thieves.’
 Se lo entrega) $Foc[a los enaÑitos]_{Foc}$.
 H* H- H*
- ‘(No.) She hands him over to the DWARFS.’

Fig. 1: F0 contour of (4a).

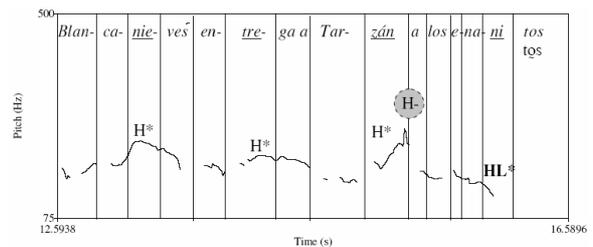
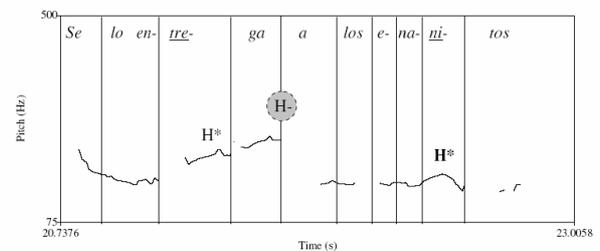


Fig. 2: F0 contour of (4b).



Focal pitch accents occurring in non-final positions surface as H*. The distinction between a neutral pre-nuclear pitch accent and a focal pitch accent can be marked through increased F0 values and/or syllable-internal early peak alignment (EPA).

3.2.1. Increased F0 values of non-final focal pitch peaks

The tonal peaks of (non-final) focal pitch accents tend to reach F0 values that are generally higher than the peaks of neutral pre-nuclear pitch accents. Two aspects have to be taken into account. First, IP-initial focal pitch accents reach higher F0 values in comparison with those of the initial non-focal pitch accents: The average F0 value of the first (non-focal) pitch accent within an IP is 204 Hz (average of a total of 35 utterances starting with presupposed material or material that belongs to a broad focus domain). The peaks of IP-initial focal

pitch accents, in contrast, display F0 values of between 249 and 339 Hz (total of 7 utterances). This largely confirms Bar-jam’s [1] claim that focal pitch peaks are about 50 Hz higher than the non-focal ones. Second, focal pitch accents occupying neither the IP-initial nor the IP-final position tend to be ‘less downstepped’ as compared to neutral pitch accents:

(5) $\begin{array}{ccccccc} \text{María} & \text{le da} & \text{F[el DIario]F} & \text{) a su hermano)} \\ | & | & | & | & | & | & | \\ \text{H}^* & \text{!H}^* & \text{!H}^* & \text{L-} & \text{low plateau} & \text{L\%} \\ 237 \text{ Hz} & 194 \text{ Hz} & 187 \text{ Hz} & & \text{post-focal deacc.} & & \\ \text{‘M. gives the NEWSPAPER to her brother.’} \end{array}$

While the pitch accent placed on *da* undergoes a considerable downstep with respect to the first peak of the first one, the peak of the focal pitch accent almost reaches the tonal value of the preceding one.

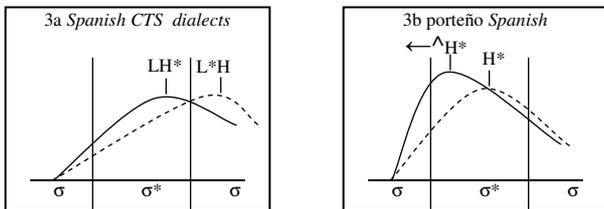
3.2.2. (Syllable-internal) early peak alignment (EPA)

Focal pitch accents tend to reach their F0 peaks earlier than neutral accents. In 10 out of the 11 relevant utterances the pitch peak is reached within the first half of the syllable’s time slot (σ^*), strictly speaking when the first third (32.2%) of the metrically strong syllable’s time slot have passed (average of 10 instances; single percentages: 31.25-42.8%). The pitch peak of non-focal accents, in contrast, is generally located at the centre or in the second part of the syllable’s time slot. Given the fact that the alignment contrast between neutral H* and focal H* is only slight in comparison with the clear alignment contrast found in CTS dialects (L*H vs. LH*), it is no wonder that *porteño* speakers in addition make use of the strategy described in 3.2.1.

3.2.3. Summary of the intonational cues

Non-final focal pitch accents are characterized by an increased F0 value (represented as $\wedge\text{H}^*$) and/or an EPA ($\leftarrow\text{H}^*$). In IP-final position, no tonal contrast is possible between broad and narrow neutral focus due to the IP-final ‘allotone’ HL*(+L%), but the general use of H* allows for a clear marking of final contrastive focus. Given the fact that in this position an XP marked with H* can solely be interpreted as contrastively focused no further distinction (through EPA or increased F0) is needed. A schematic representation of surfacing CTS and *porteño* pitch accents is given in Fig. 3. Dotted lines represent the default realization (‘late rise’ L*H in CTS and ‘early rise’ H* in *porteño*); plain lines stand for the focal pitch accents (‘early rise’ LH* in CTS and syllable-initial upstepped rise $\leftarrow\wedge\text{H}^*$ in *porteño*).

Fig. 3a,b: Schematization of alignment patterns.



4. Analysis and OT account

As already stated I assume two underlying pitch accents for Spanish CTS varieties: A neutral tone /(LH)*/ (corresponding to the different surface contours given in Table 1), and $\text{/LH*}/$

marking (contrastively or neutrally) focused XPs. Given the fact that in *porteño* Spanish the pitch contours discussed in the last section allow for an unambiguous marking of contrastive focus at least in IP-final position, it seems reasonable to assume two underlying pitch accents, a neutral $\text{/H*}/$ and a contrastive one $\text{/}\leftarrow\wedge\text{H*}/$. Possible surface realizations are summarized in Table 1.

Table 1: Realization of pitch accents.

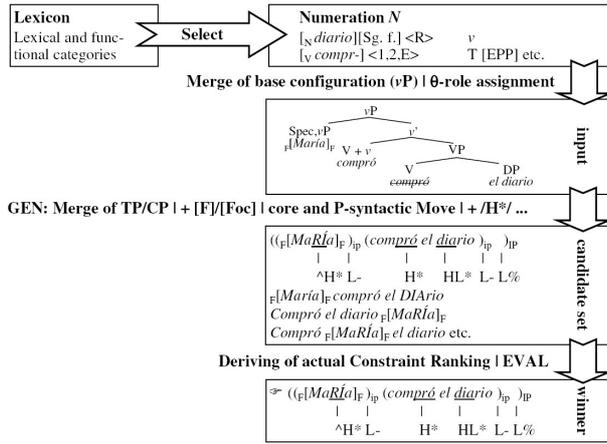
		pre-nuclear	IP-final
CTS varieties	neutral	/(LH)*/	L*H, LH*
	focal	$\text{/LH*}/$	LH*
<i>porteño</i> Spanish	neutral	$\text{/H*}/$	HL*
	contrastive	$\text{/}\leftarrow\wedge\text{H*}/$	H*

Although *porteño* Spanish differs from CTS varieties both in the repertoire of underlying pitch accents and in the relevant surfacing contours there is no fundamental difference between the dialects considered here, all of them allowing for signaling focus through intonational means (but differing in the relevant neutralization properties, however). Concerning the syntactic strategies, they all behave identically insofar F[S]F can appear in initial as well as in final position (see 2.2, above). Accounting for this kind of free variation constitutes a challenge for both derivational and traditional OT approaches, given the fact that only one correct form or ‘winning candidate’ can result from a given derivation or evaluation. The optimality-theoretic overlapping constraints model [2], however, allows for the integration of optionality into the model of grammar. In the remainder of this section I will sketch an account based on the following assumptions:

- All structures are built up according to the Minimalist target/probe approach [3]. While movement of F[S]F to the preverbal position is taken to be a core-syntactic operation (satisfaction of T’s EPP feature), post-verbal subjects are supposed to stay in their νP -internal base position. Assuming that presupposed material can move along with the verbal head on PF [6], the output ordering VOF[S]F is derived by means of a P-syntactic operation.
- The base configuration (lexical layer νP) serves as input for the generator GEN.
- After merging the functional layers TP/CP GEN creates all of the possible linear orderings using all possible core-syntactic and P-syntactic movement operations.
- The structures thus obtained are subsequently assigned the relevant pragmatic features (neutral focus [F], contrastive focus [Foc]) and associated with all of the possible intonational contours resulting from the specific repertoires of underlying tones given in Table 1.
- The candidate set undergoes an OT evaluation according to the overlapping constraints model [2]: Instead of assuming a fixed hierarchy, the actual constraint ranking is derived at the moment of the evaluation from a Gradual Ranking Scale (GRS) on which the relevant constraints can overlap to different degrees.
- Due to the possible overlapping properties of certain constraints various rankings can be derived from GRS, allowing for different output forms to be evaluated as the optimal candidate.

The assumed model of grammar is sketched in Fig. 4, below, with the example of a *porteño* F[S]FVO structure.

Figure 4: *The assumed model of grammar.*

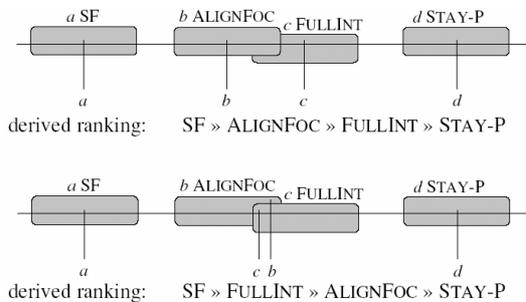


Let me finally illustrate the proposed account with the example of a non-clefted declarative containing a full DP object. The following constraints are needed:

- (6) a. STRESSFOCUS (SF): A focused XP is prosodically more prominent than a presupposed one.
- b. ALIGNFOC: The right edge of $F[XP]_F$ matches the right edge of IP, e.g. [10].
- c. FULLINT (FI): Parse lexical conceptual structure. Failed by expletives (e.g. pro_{Expl}) and auxiliaries [9].
- d. STAY-P: No P-syntactic movement (one violation per moved syllable).

Due to the fact that ALIGNFOC and FULLINT overlap on GRS two different constraint hierarchies can be derived:

Fig. 5: *Gradual ranking scale.*



Consequently, two orderings can result as winning candidates: According to the overlapping properties of the relevant constraints $VO_F[S]_F$ is the rare and $F[S]_F VO$ the frequent result.

Table 2: *Tableau for $VO_F[S]_F$ and $F[S]_F VO$.*

	overlapping constraints			
	SF	ALIGNFOC	FI	STAY-P
pro_{Expl} Compró el diario $F[MaRía]_F$			*	***
$F[MaRía]_F$ compró el diario		*		
$F[MaRía]_F$ compró el DIario	*!			

Note that the third candidate is ruled out by both rankings due to its violation of the high ranked constraint SF. The ranking scale given in Fig. 5 is valuable for both *porteño* and CTS varieties; the characteristic shape of the resulting F0 contours is mediated by the specific repertoires of pitch accents: While

CTS dialects mark a focused subject in preverbal position with LH* (early rise instead of the unmarked pre-nuclear late rise L*H), Argentinean *porteño* lacks this alignment contrast and instead makes use of the strategies described in section 3.2.

5. Conclusions

Both *porteño* and CTS dialects primarily signal focus through intonational means. In addition, reordering of constituents may apply yielding prosodically unmarked structures with IP-final nuclear stress (i.e. $VO_F[S]_F$). The particular shape of *porteño* focal pitch accents results from the fact that this dialect has no basic alignment contrast L*H vs. LH* as is the case for CTS varieties. The tonal cues of *porteño* focus marking identified in my data are increased F0 values, suspension of downstep and/or EPA; it goes without saying that these findings need to be supported by further studies based on larger data sets. The variation resulting from the (optional) application of focus-induced movement operations is best accounted for by adopting an OT perspective with overlapping constraints.

6. References

- [1] Barjam, J.P., 2004. *The Intonational Phonology of Porteño Spanish*. MA Thesis, UCLA.
- [2] Boersma, P.; Hayes, B., 2001. Empirical Tests of the Gradual Learning Algorithm. *Linguistic Inquiry* 32, 45-86.
- [3] Chomsky, N., 2000. Minimalist Inquiries: the Framework. *Step by step*. R. Martin (ed.). Cambridge, MA.: MIT Press, 89-155.
- [4] Colantoni, L.; Gurlekian, J., 2004. Convergence and intonation: historical evidence from Buenos Aires Spanish. *Bilingualism: Language and Cognition* 7, 107-119.
- [5] Domínguez, L., 2004. *Mapping Focus: The Syntax and Prosody of Focus in Spanish*. Ph.D. Diss., Boston.
- [6] Erteschik-Shir, N.; Strahov, N., 2004. Focus structure architecture and P-syntax. *Lingua* 114, 301-323.
- [7] Face, T.L., 2002. *Intonational Marking of Contrastive Focus in Madrid Spanish*. Frankfurt: Lang.
- [8] Gabriel, C., 2005. *Fokus im Spannungsfeld von Phonologie und Syntax*. Habilitation thesis, Osnabrück: UOS.
- [9] Grimshaw, J.; Samek-Lodovici, V., 1998. Optimal Subjects and Subject Universals. *Is the Best Good Enough?* P. Barbosa (ed.). Cambridge, MA: MIT Press, 193-219.
- [10] Gussenhoven, C., 2004. *The Phonology of Tone and Intonation*. Cambridge: CUP.
- [11] Hualde, J.I., 2000. Intonation in Spanish and the other Ibero-Romance Languages. *Romance Phonology and Variation*. C.R. Wiltshire (ed.). Amsterdam: Benjamins, 101-115.
- [12] Kaisse, E., 2001. The long fall: An intonational melody of Argentinean Spanish. *Features and Interfaces in Romance*. J. Herschensohn (ed.). Amsterdam: Benjamins, 148-160.
- [13] Rialland, A.; Robert, S., 2001. The intonational system of Wolof. *Linguistics* 39, 893-939.
- [14] Samek-Lodovici, V., 2003. Crosslinguistic Typologies in Optimality Theory. *Optimality-Theoretic Syntax*. G. Legendre, G. (ed.). Cambridge, MA: MIT Press, 315-353.
- [15] Sosa, J.M., 1999. *La entonación del español*. Madrid: Cátedra.
- [16] Toledo, G.A., 2000. H en el español de Buenos Aires. *Langues et Linguistique* 26, 107-127.
- [17] Zubizarreta, M.L., 1998. *Prosody, Focus, and Word Order*. Cambridge, MA.: MIT Press.