

Prosodic Correlates of Mirative and New Information Focus in Spanish Wh-in-situ Questions

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Background: This paper examines the prosodic correlates of focus in two types of wh-in-situ questions: information-seeking (INF; 1) and echo-surprise (SUR; 2). INF questions are typically associated with new information focus, since they can be used in out-of-the-blue-contexts and need a sentence-final wh-word (Zubizarreta 1998, Reglero 2007). On the other hand, SUR questions are generally analyzed as having contrastive focus, because they require heavy contextualization and are not restricted to sentence-final position (Chernova 2013, Reglero & Ticio 2013). However, Badan & Crocco (2019) argue that SUR questions in Italian are associated with Mirative focus, since they express unexpectedness and surprise (in line with De Lancey 1997, Brunetti 2009; Cruschina et al. 2015 and Jiménez-Fernández 2015) and have marked intonational properties (including expanded pitch range, and main perceptual prominence on wh-phrase), unlike new information focus.

Goals and Methodology: In order to test whether INF and SUR wh-in-situ questions in Spanish have prosodic correlates compatible with new information or mirative focus, we analyze data from 14 female participants from Spain. The intonation of 10 INF and 10 SUR questions from a contextualized elicitation task was analyzed acoustically in Praat for each participant, resulting in 280 target sentences. We report the general melodic curve of wh-in-situ questions, as well as several correlates associated with focus, namely: (i) the highest HIGH in the nuclear configuration; (ii) the Focus Tonal Range ('FTR'; the difference between the HIGH and the LOW in the nuclear configuration), and (iii) the nuclear contour (Beckman et al. 2002; Face & Prieto 2007; Aguilar et al. 2009).

Results: Preliminary results from 10 participants show that both types of wh-in-situ questions consist of three main tonal movements: (i) a rise through the syllable following the first pre-nuclear accent; (ii) declination (i.e., pitch lowering) up to the wh-phrase, and (iii) a steep final rise (Figures 1, 2). The contour L+H* HH% is found in 80% of SUR questions and 50% of INF questions; six participants use the first contour for both question types. SUR questions show a significantly more elevated HIGH than INF questions (386 Hz. vs. 339 Hz. on average, respectively; $p=.003$). In addition, the FTR is significantly larger in SUR questions than INF contexts (203 Hz vs. 151 Hz., respectively; $p <.001$). Calculated in semitones (ST.), the differences in HIGH and FTR are 2.5 ST and 2.7 ST. higher for SUR questions compared to INF contexts, which surpasses the perceptual threshold and can be considered linguistically relevant (Pàmies-Bertrán et al. 2002, among others).

Discussion: The elevated High/FTR reported for SUR questions is consistent with acoustic correlates of surprise reported previously for Spanish questions (Quilis 1999; Hualde & Prieto 2015; inter al.), as well as for Italian surprise wh-in-situ questions (Badan & Crocco 2019). Thus, our preliminary data suggest that SUR questions have Mirative focus rather than contrastive focus. Unlike in Italian, we observed no general differences in the type of contour used in SUR and INF. However, because SUR has a significantly, perceptually relevant elevated HIGH and FTR compared to INF, we tentatively propose that Mirative focus tends to be realized in Spanish wh-in-situ questions as an upstepped nuclear configuration (L+;H*), unlike new-information focus (L+H*). Our presentation will also include a comparison to similar questions in French (Cheng & Rooryck 2000, Déprez et al. 2013; Gryllia et al. 2016; Authier & Haegeman 2019).

Examples

(1) *Dime una cosa: ¿Alex compró qué?*

‘Tell me something: What did Alex buy?’

(2) *¡No me lo puedo creer! ¿Alex compró QUÉ?*

‘I can’t believe it! Alex bought WHAT?’

Figure 1 Echo-surprise question

The cat’s name is WHAT?

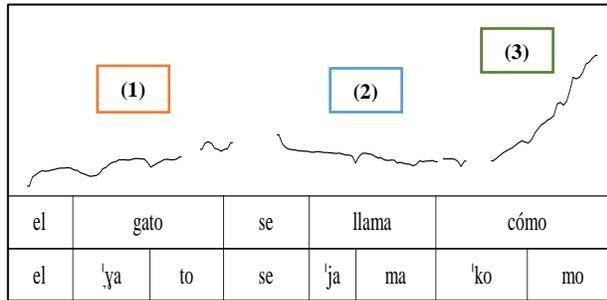
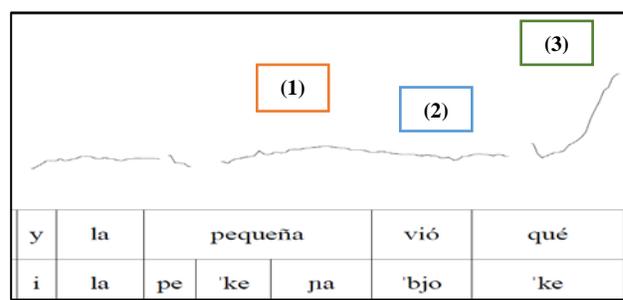


Figure 2 Information-seeking question.

And the little one saw what?



- Tonal movements:
- (1) Rise through syllable following first pre-nuclear accent
 - (2) Declination up to beginning of wh-phrase
 - (3) Steep final rise

Selected References

- Aguilar, L. et al. (coords). 2009. *Sp_ToBI Training Materials*. Web page: http://prosodia.upf.edu/sp_tobi/
- Authier, M & L. Haegemann. 2019. The syntax of mirative focus fronting: Evidence from French. In Arteaga D. (eds), *Contributions of Romance Languages to Current Linguistic Theory*. Springer.
- Badan, L. & C. Crocco. 2019. Focus in Italian echo wh-questions: an analysis at syntax-prosody interface. *Probus* 31: 29-73.
- Beckman, M., M. Diaz-Campos, J. McGory, & T. Morgan. 2002. Intonation across Spanish in the Tones and Break Indices Framework. *Probus* 14: 9-36.
- Cheng, L. L., & J. Rooryck. 2000. Licensing wh-in-situ. *Syntax* 3: 1-19.
- Déprez, V., K. Syrett, & S. Kawahara. 2013. The Interaction of syntax, prosody, and discourse in licensing French wh-in-situ questions. *Lingua* 124: 4-19.
- Face, T. & P. Prieto. 2007. Rising accents in Castilian Spanish: a revision of Sp_ToBI. *Journal of Portuguese Linguistics* 6: 117-146.
- Gryllia, S., L. L. Cheng, & J. Doetjes. 2016. On the intonation of French wh-in situ questions. What happens before the wh-word is reached? *Speech prosody*: 611-614.
- Hualde, J. I. 2003. El modelo métrico y autosegmental. In *Teorías de la entonación*, P. Prieto (ed.), Barcelona: Ariel. 155-184.
- Pàmies-Bertrán, A., A. M. Fernández-Planas, E. Martínez-Celdrán, A. Ortega-Escandell & M. C. Amorós. 2002. Umbrales tonales en español peninsular. *Actas del II Congreso de Fonética Experimental*. Universidad de Sevilla. 272-278.
- Reglero, L. 2007. Wh-in-situ interrogatives in Spanish. *Probus* 19: 267-297.
- Reglero, L & E. Ticio. 2013. A unified analysis of wh-in-situ in Spanish. *The Linguistic Review* 30: 1-47.
- Zubizarreta, M.L. 1998. *Prosody, Focus and Word Order*. Cambridge, MA: MIT Press.