

## A unified Optimality Theoretic approach to focus and word order in Catalan and Spanish

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Catalan and Spanish, two closely-related languages, are considered to mark focus by syntactic means, although recent studies show that prosodic strategies are acceptable as well (Estebas-Vilaplana 2000, Face & D'Imperio 2005). Regarding these prosodic strategies, in Catalan and Spanish it is assumed that intonational prominence falls on clause-final position and that prominence shift is not an available strategy (Vallduví 1991, Zubizarreta 1998). Thus, alternative syntactic mechanisms are proposed in order to locate prominence in clause-final position (dislocation of the nonfocal material for Catalan, Vallduví 1991; *p(rosodically motivated)-movement*, Zubizarreta 1998). However, recent prosodic studies on Spanish argue against Zubizarreta's claim showing that focus can be also prosodically marked in situ (e.g. Muntendam 2009, Gabriel 2010, Leal-Méndez & Shea 2012, Hoot 2012). Other syntactic strategies such as focus fronting or clefting seem to be restricted to a contrastive meaning (Solà 1990 and Vallduví 1991 for Catalan, Zubizarreta 1998 for Spanish).

This paper, in a first step, experimentally investigates how prosody interacts with syntax in the expression of neutral and contrastive focus in Catalan and Spanish, and shows that the data support Vallduví (1991) and Zubizarreta (1998). In a second step, a stochastic optimality theoretic (SOT) approach is proposed to account for the syntactic and prosodic focus realizations in the two languages.

A production study was designed to elicit broad, information and contrastive focus declaratives by means of question-answer pairs from short picture stories (based on the methodology applied in Gabriel, Feldhausen & Pešková 2009 and Gabriel 2010). 10 Majorcan Catalan speakers and 10 Castilian Spanish speakers participated in the experiment on semi-spontaneous speech. The materials had a simple syntactic structure (S+V+O+{O/Adjunct}).

For the work presented here, 7 CAT speakers and 4 SPA speakers were analyzed. The present database comprise 1658 sentences for CAT (169 broad focus declaratives, 664 contrastive focus declaratives and 825 information/neutral narrow focus declaratives) and 1014 for SPA (97 broad focus declaratives, 458 contrastive focus declaratives and 459 information/neutral narrow focus declaratives). Our results show that in CAT and SPA different focus types are marked by specific combinations of syntactic and prosodic mechanisms. Both languages agree in the expression of broad focus sentences by means of a neutral word order (SVOO/Adjunct) and a falling intonation pattern. Information focus sentences in CAT are marked preferably by left dislocation and focus fronting. Neutral word order and clefting are the preferred mechanisms for SPA information focus. As in the case of broad focus sentences, information focus is very often produced with a falling intonation pattern. As for contrastive focus, syntactic strategies vary between the languages (mostly right dislocation and clefting, followed by left dislocation and fronting in CAT; whereas clefting and focus fronting are the main strategies in SPA). However, in both languages contrastive focus tends to be accompanied by a rising-falling intonation. To sum up, our results present further evidence that the focused material must occupy the rightmost position in a sentence (contra Gabriel 2010, Hoot 2012 etc.) and that when this is not possible, it has to be left in a marked position where it can receive prominence. Finally, prosody serves to distinguish contrastive focus (characterized by a rising-falling pattern and

triggering postfocal compression) from information focus (in which a falling pattern is found with no postfocal compression).

The similarities and differences between the languages are accounted for by means of a stochastic optimality theoretic (Boersma & Hayes 2001) approach. The broad focus pattern in SPA and CAT emerges from the basic constraint ranking STRESSFOCUS >> HEAD-IP >> STAY (taken from Samek-Lodovici 2013 for focus in Italian), which leads to a canonical word order in which focus bears main prominence and is sentence final: STRESSFOCUS demands the focused constituent to bear main prominence (cf. Truckenbrodt 1995, Zubizarreta 1998). HEAD-IP demands that the main stress occurs rightmost in its intonational phrase (cf. Truckenbrodt 1995), and STAY penalizes movement (Grimshaw 1997). For the informational focus two further constraints are needed: (a) SPEC,FINP/[<sub>F</sub>XP], demanding the focused XP to be hosted in Spec,FinP (based on Gutiérrez-Bravo 2002, López 2009, Gabriel 2010), and (b) D(ISLOCATE)G(IVEN), demanding given material to be left- or right dislocated (cf. Samek-Lodovici 2013). As for Spanish, SPEC,FINP/[<sub>F</sub>XP] and HEAD-IP overlap (cf. Boersma & Hayes 2001). At evaluation, when SPEC,FINP/[<sub>F</sub>XP] is below HEAD-IP, the neutral word order arises, but when it is higher, the focused material is fronted and can be part of a cleft sentence. As for Catalan, in contrast, SPEC,FINP/[<sub>F</sub>XP] and DG overlap. When SPEC,FINP/[<sub>F</sub>XP] >> DG, focus fronting arises, but when DG >> SPEC,FINP/[<sub>F</sub>XP] a dislocation structure is realized. Since the two constraints are basically ranked higher than HEAD-IP and STAY, a canonical word order is not an option in Catalan. With respect to contrastive focus, SPEC,FINP/[<sub>CF</sub>XP] is active in both languages (i.e. higher than HEAD-IP), demanding the contrastively focused element to be in FinP. In contrast to Spanish, DG is active in Catalan and overlaps with SPEC,FINP/[<sub>CF</sub>XP]. Most often, DG is higher at evaluation so that a dislocation structure is the typical outcome. However, when DG is lower, Catalan displays focus fronting or clefting. In sum, the classical constraints STRESSFOCUS, HEAD-IP, and STAY together with SPEC,FINP/[<sub>F</sub>XP], SPEC,FINP/[<sub>CF</sub>XP], and DISLOCATEGIVEN can easily account for the inter- and intra-language differences in the focus realization of Spanish and Catalan.

**Boersma, P. & Hayes, B.** 2001. Empirical tests of the Gradual Learning Algorithm. *Linguistic Inquiry* 32: 45–86. // **Estebas-Vilaplana, E.** 2000. *The use and realisation of accentual focus in Central Catalan with a comparison to English*. Ph.D. dissertation, UCL. // **Face, T. & D’Imperio, M.** 2005. Reconsidering a focal typology: evidence from Spanish and Italian. *Italian Journal of Linguistics* 17, 271-289. // **Gabriel, C.** 2010. On focus, prosody, and word order in Argentinean Spanish: a minimalist OT account. *Revista Virtual de Estudos da Linguagem*, Special issue 4, 183-222. // **Gabriel, C., Feldhausen, I. & Pešková, A.** 2009. Contrastive and neutral focus in *porteño* Spanish. Talk presented at DGfS 2009, Osnabrück (<http://www.ilg.uni-stuttgart.de/focus/Gabriel.pdf>, 13.09.2013). // **Grimshaw, J.** 1997. Projections, Heads, and Optimality. *Linguistic Inquiry* 28: 373–422. // **Gutiérrez-Bravo, R.** 2002. Focus, Word Order variation and intonation in Spanish and English. In C. Wiltshire & J. Camps (eds.), *Romance Phonology and Variation*. Amsterdam: John Benjamins, 39-53. // **Hoot, B.** 2012. Presentational Focus in Heritage and Monolingual Spanish. PhD thesis Chicago. // **Leal-Méndez, T., & Shea, C.** 2012. L1 Mexican Spanish and L2 Spanish learners at the syntax discourse interface: P-movement or in-situ prosody? Paper presented at the 42<sup>nd</sup> Linguistic Symposium on Romance Languages, Cedar City, UT, April 21, 2012. // **López, L.** 2009. *A Derivational Syntax for Information Structure*. OUP. // **Muntendam, A.** 2009. Linguistic transfer in Andean Spanish: Syntax or pragmatics? Ph.D. dissertation, University of Illinois at Urbana-Champaign. // **Samek-Lodovici, V.** 2013. The Interaction of Focus and Givenness. Book manuscript, UCL. // **Solà, J.** 1990. L’ordre dels mots en català. Notes pràctiques. In Joan Solà (ed.), *Lingüística i normativa*, 91-124. Barcelona, Spain: Empúries. // **Truckenbrodt, H.** 1995. Phonological Phrases - their Relation to Syntax, Focus, and Prominence. PhD Thesis, MIT. // **Vallduví, E.** 1991. The role of plasticity in the association of focus and prominence. *Proceedings of the eastern states conference on linguistics (ESCOL)* 7, 295-306. // **Zubizarreta, M.L.** 1998. *Prosody, Focus, and Word Order*. MIT Press.