

### Wh-in-situ and the Spanish DP: Movement or no movement?

In this paper, we tease apart the two leading theories of wh-in-situ constructions in Spanish (i.e. “the movement approach”, Uribe-Etxebarria (2002); Etxepare and Uribe-Etxebarria (2005) and “the in situ approach”, Reglero (2004, 2005)). Under “the movement approach”, the sentence final requirement (SFR) imposed on Spanish wh-in-situ is explained as the result of a two-step movement syntactic derivation (overt movement of the wh-phrase to SpecCP and subsequent movement of the remnant to a higher position; (2) is the derivation for (1a)). Under “the in situ approach”, massive overt movement is not assumed. The SFR is derived as a result of the interplay of the syntactic and phonological properties of in-situ wh-phrases in Spanish. More precisely, wh-phrases need to appear in final position to receive main sentential stress via the Nuclear Stress Rule (NSR) ((3) is the derivation for (1a), pre- and post-Spell-Out). In the paper, we show that “the in situ approach” is superior. For this, we examine some previously unobserved data involving wh-in-situ constructions in the DP-domain and show that a number of DP-effects can only be explained under the non-movement approach to wh-in-situ.

It has gone unobserved that in situ wh-phrases in the DP-domain are also subject to the SFR, as shown in (4). This is quite surprising given that the neutral word order of PP arguments in the DP is free, as in (5). Torrego (1987), Ormazabal (1991), and Ticio (2003, 2005), among others, have noted that wh-movement out of Spanish DPs is severely restricted. (6) shows that PP modifiers within non-specific Spanish DPs maintain a hierarchical relation, with possessors higher than agents and objects, and agents structurally higher than objects. The presence of a structurally higher PP modifier blocks the extraction of structurally lower PP modifiers out of DP. Crucially, none of these restrictions are found in wh-in-situ constructions (see (7)), which argues against the predictions made by “the movement approach”.

Furthermore, “the movement approach” makes some predictions which are not borne out by some previously unobserved contrasts involving adjuncts and specific DPs. (8a) shows that adjunct PPs cannot undergo wh-movement but can appear as wh-phrases in situ, as in (8b). This is completely unexpected for this approach: (8b) should be bad if overt movement occurs in both constructions. (9) illustrates that the general ban on wh-extraction out of specific DPs ((9a)) is not applicable to wh-in-situ ((9b)). This conclusion is also unexpected: if wh-movement takes place in both cases, both examples should be ungrammatical. Based on all this, we conclude that “the movement approach” cannot account for wh-in-situ in the Spanish DP. In order to make the right predictions (hierarchy, adjuncts and specificity), we need an account which does not postulate overt wh-movement of the wh-in-situ: “the in situ approach”.

Our analysis derives the SFR imposed on wh-in-situ in the DP from syntactic and phonological properties of the wh-phrases. Following Reglero (2004, 2005), we adopt a system in which stress assignment and Copy Theory interact (Stjepanović, 2003). We also assume Zubizarreta’s (1998) formulation of the NSR for Spanish ((10)), F-marking ([+F]=focused, [-F]=defocalized; wh-words are intrinsically marked [+F]) and the Focus Prominent Rule (FPR) (see (11)). The structure for the DP is given in (12) (for ex. (4a)), with copies and F-marking indicated (for the movement of the possessor in the structure see Den Dikken (1997), among others). The derivation for this example would proceed as follows. The first metrical sisters the algorithm considers are ‘varios’ and AgrP. ‘Varios’ is [-F] and AgrP is unspecified for feature [F]. This is so because AgrP contains both [+F] and [-F] elements. Since ‘varios’ and AgrP do not have contradictory specifications, the FPR does not apply. The NSR applies and AgrP, being the most embedded element in the asymmetric c-command ordering, receives prominence. The algorithm continues reapplying until it reaches the last pair of metrical sisters: ‘de lingüística’ and ‘de quién’. The FPR can apply in this case because there is a contradictory situation between the two sisters. The FPR applies and assigns prominence to the [+F] element ‘de quién’. The NSR also applies and assigns prominence to the same element. After copy deletion applies we obtain (13). Note that we have pronounced the lowest copy of ‘de quién’. Not pronouncing this copy would lead to a PF violation: main stress would not be assigned.

In the paper, we also discuss adjuncts in the DP-domain, and contexts with and without an additional wh-phrase in SpecCP. To the extent that our analysis for wh-in-situ in the DP is correct, it provides strong empirical evidence for a unified syntax-phonology interface analysis of all wh-in-situ constructions in Spanish (in the nominal and the clausal domains).

## Examples:

- (1) a. Tú le diste la guitarra *a quién*? (SFR fulfilled)  
 you CL gave the guitar to who  
 b. \*Tú le diste *a quién* la guitarra? (violation of the SFR)
- (2) [CP *a quién*<sub>i</sub> [IP tú le diste la guitarra t<sub>i</sub>]] (Step 1)  
 [XP [IP tú le diste t<sub>i</sub> la guitarra]<sub>j</sub> [CP *a quién*<sub>i</sub> t<sub>j</sub>]] (Step 2)
- (3) [AgrSP tú diste [AgrOP la guitarra diste [AgrOP *a quién* diste [VP tú diste la guitarra *a quién*]]]]  
 [-F] [-F] [-F] [-F] [+F] [-F] [-F] [-F] [-F] [+F]  
 [AgrSP tú diste [AgrOP la guitarra ~~diste~~ [AgrOP ~~*a quién*~~ ~~diste~~ [VP tú ~~diste~~ la guitarra *a quién*]]]]  
 [-F] [-F] [-F] [-F] [+F] [-F] [-F] [-F] [-F] [+F]
- (4) a. Leímos varios libros de lingüística *de quién*? (SFR fulfilled)  
 we-read several books of linguistics of who  
 b. \*Leímos varios libros *de quién* de lingüística? (violation of the SFR)
- (5) a. Leímos varios libros de lingüística de Chomsky.  
 we-read several books of linguistics of Chomsky  
 b. Leímos varios libros de Chomsky de lingüística.
- (6) a. \*¿[De qué] has leído [varios libros t<sub>obj</sub> [de Juan]<sub>poss</sub>]?  
 of what (you) have read several books t<sub>obj</sub> [of Juan]<sub>poss</sub>  
 b. \*¿[De quién] has leído [varios libros t<sub>ag</sub> [de Juan]<sub>poss</sub>]?  
 of whom (you) have read several books t<sub>ag</sub> [of Juan]<sub>poss</sub>  
 c. ¿[De qué coleccionista] has comprado [varios ejemplares [de esa obra]<sub>obj</sub> t<sub>poss</sub>]?  
 of what collector (you) have bought several copies [of that work]<sub>obj</sub> t<sub>poss</sub>
- (7) a. Has leído varios libros [de lingüística]<sub>obj</sub> [de Juan]<sub>ag/poss</sub> / [de Juan] [de lingüística]  
 you-have read several books of linguistics of John  
 b. Has leído varios libros \**de qué* de Juan/ de Juan *de qué*  
 you-have read several books of what of/by John  
 c. Has leído varios libros de lingüística *de quién* / \**de quién* de lingüística  
 you-have read several books of linguistics of/by who
- (8) a. \**Según* *quién* escuchamos el evangelio?  
 According-to who we-listened to-the Gospel  
 b. Escuchamos el evangelio *según* *quién*?
- (9) a. \**De qué* compramos los tres libros?  
 of what we-bought the three books  
 b. Compramos los tres libros *de qué*?
- (10) NSR (Nuclear Stress Rule)  
 Given two nodes C<sub>i</sub> and C<sub>j</sub>, that are metrical sisters, the one lower in the syntactic asymmetric c-command ordering is more prominent.
- (11) FPR (Focus Prominence Rule)  
 Given two sister categories C<sub>i</sub> (marked [+F]) and C<sub>j</sub> (marked [-F]), C<sub>i</sub> is more prominent than C<sub>j</sub>.
- (12) [DP[D' [D varios [AgrP *de quien* [Agr' [Agr libros [NP de lingüística [N' [N *de quién*]]]]]]]]]  
 [-F] [+F] [-F] [-F] [+F]
- (13) [DP[D' [D varios [AgrP ~~*de quien*~~ [Agr' [Agr libros [NP de lingüística [N' [N *de quién*]]]]]]]]]  
 [-F] [+F] [-F] [-F] [+F]

## Selected references:

- Uribe-Etxebarria, Myriam (2002). In situ questions and masked movement. *Linguistic Variation Yearbook* 2: 259-303.
- Reglero, Lara. *A'-dependencies in Spanish and Basque*. University of Connecticut, Storrs. PhD diss.