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This is an **author produced version** of a paper published in:

Studia Linguistica 74.3 (2020): 717-739

DOI: <https://doi.org/10.1111/stul.12141>

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LEXICAL VARIATION IN DEGREE WH-QUESTIONS IN SPANISH AND THE INTERNAL STRUCTURE OF WH-PHRASES*

Luis Eguren

Abstract. This paper provides a formal account of the pattern of lexical variation found in adjectival degree wh-questions in current Spanish. It is proposed that Spanish degree wh-forms heading an interrogative clause (*cuán* ‘how much’, *qué tan* ‘what so’, *cómo de* ‘how of’, and *cuánto de* ‘how much of’) share an internal structure including (at least) two components, a wh-operator and a (degree) variable, which are both phonetically realized in the Old and American Spanish degree wh-expression *qué tan*. This analysis is extended to the American Spanish nominal wh-form *qué tanto(s)* ‘what so much/many’ and to the general Spanish manner wh-expression *qué tal* ‘what such’. It is further argued that all interrogative wh-forms in Spanish comprise a wh-quantifier and an overt or covert variable ranging over different types of entities (individuals, amounts, manners, degrees, etc.), also tentatively suggesting that this could apply across languages.

1. Introduction¹

* I thank two anonymous reviewers for their comments on the content of this work, which has been supported by a grant to the project FFI2017-87140-C4-4-P and by the Salvador de Madariaga grant PRX18/00009.

¹ The following gloss abbreviations will be used in the text: CL = clitic, FUT = future, MASC = masculine, PL = plural, SG = singular, SUBJ = subjunctive.

Adjectival degree wh-questions in Spanish show a remarkably rich pattern of variation in the lexical realization of the wh-form preceding the adjective: as illustrated in (1), degree wh-expressions in interrogative clauses can take four different lexical forms in current Spanish, *cuán* ‘how much’, *qué tan* ‘what so’, *cómo de* ‘how of’, and *cuánto de* ‘how much of’, its use being subject to sociolectal and/or dialectal variation (see the following Section).²

- (1) a. ¿Cuán alta es Ana?
 how much tall is Ann
- b. ¿Qué tan alta es Ana?
 what so tall is Ann
- c. ¿Cómo de alta es Ana?
 how of tall is Ann
- d. ¿Cuánto de alta es Ana?
 how much of tall is Ann
 ‘How tall is Ann?’

In this paper, I will offer a formal structural analysis of the pattern of lexical variation in (1). I will argue that all degree wh-forms in Spanish wh-questions have an internal structure consisting of (at least) a wh-operator and a degree variable, which is overtly

² All the wh-forms in (1) are also used in Spanish adjectival wh-exclamatives, together with exclamative-only *qué* ‘what’, which is the preferred form in all Spanish dialects. I will not be dealing with wh-exclamatives in this paper (see, however, the comments in footnote 9 below).

manifested in the Old and American Spanish complex wh-expression *qué tan*, whereas in the rest of Spanish degree wh-forms only the wh-operator has phonological content and the degree variable is null. I will further propose that an analysis along these lines applies to all interrogative wh-forms in Spanish, and to wh-forms in other languages as well.

The content of the paper is organized as follows. Section 2 presents the Spanish facts under study, addressing both the origin and current dialectal distribution of the degree wh-forms in (1), and also sets out the assumptions on the syntactic structure of adjectival degree phrases and on the semantics of degree wh-questions my proposal will be based on. In Section 3, I develop my analysis of lexical variation in Spanish interrogative degree wh-forms as the (overt or covert) expression of the combination of a wh-operator and a variable in detail. Section 4 extends this analysis to all interrogative wh-forms in this language. Section 5 finally contains the main conclusions of my research.

2. Data and assumptions

As shown in the examples in (1) above, which are reproduced in (2), degree wh-questions with adjectives can be introduced by four different lexical forms in current Spanish: *cuán* ‘how much’, *qué tan* ‘what so’, *cómo de* ‘how of’, and *cuánto de* ‘how much of’.³

³ This pattern is replicated in embedded wh-questions, and also obtains with gradable adverbs. For a detailed overview of the origin, history and current distribution of the wh-forms in (2), see

- (2) a. ¿Cuán alta es Ana?
 how much tall is Ann
- b. ¿Qué tan alta es Ana?
 what so tall is Ann
- c. ¿Cómo de alta es Ana?
 how of tall is Ann
- d. ¿Cuánto de alta es Ana?⁴
 how much of tall is Ann
 ‘How tall is Ann?’

The Old Spanish adjectival degree wh-word *cuán*, which is standardly analyzed as an apocope of *cuánto* ‘how much’, is a feature of general Spanish nowadays, but it is used in different registers across dialects: most speakers of Peninsular Spanish see it as an archaic lexical item that is restricted to formal language, and only some varieties of American Spanish use it (more pervasively) as an interrogative wh-element, its generalised use being that of an exclamative.

Sánchez López (2006), Octavio de Toledo & Sánchez López (2007, 2009), and Sánchez López & Octavio de Toledo (2010). The comments in the text below summarize the ideas in these works.

⁴ As pointed out by a reviewer, the alternation in (2c,d) between *cuánto* ‘how much’ and *cómo* ‘how’ recall similar ones with wh-relatives, as in *tantas cuantas quieras/tantas como quieras* ‘as many as you wish’, again with no difference in meaning.

As illustrated in the CORDE examples with root and embedded adjectival wh-questions in (3) and (4), *qué tan* ‘what so’ is also often documented in Medieval and Classical Spanish texts:

- (3) a. ¿Qué tan largo deve ser un poema heroico?
what so long must.3SG be a poem heroic
‘How long must a heroic poem be?’

(Cascales, *Tablas poéticas*, 1617)

- b. Vuestro hijo - ¿qué tan grande es?
your son what so big is
‘Your son - how big is he?’

(Anónimo, *La crónica de Adramón*, 1492)

- (4) a. Por sólo ver qué tan hermosa es...
for just see what so beautiful is
‘Just to see how beautiful she is...’

(Romero de Cepeda, *La historia de Rosián de Castilla*, 1586)

- b. Si quieren saber qué tan breue es su vida...
if want.2PL know what so short is his life
‘If you want to know how short his life is...’

(Fernández de Oviedo, *Batallas y quinquagenas*, 1535)

This complex degree wh-form was lost in Peninsular Spanish in the XVIIIth century, but has been preserved in American Spanish, where it is widely used nowadays,

introducing both root and embedded adjectival wh-questions, as in the CREA examples below:⁵

- (5) a. ¿Más o menos qué tan grande es? (Colombia)

more or less what so big is

‘How big is it more or less?’

- b. ¿Qué tan esencial era esta reforma...? (Mexico)

what so essential was this reform

‘How essential was this reform?’

- (6) a. La pregunta es qué tan grande es el mercado para él. (Argentina)

the question is what so big is the market for him

‘The question is how big the market is for him.’

- b. Él quería conocer qué tan buenas eran esas historias... (Uruguay)

he wanted know what so good were those stories

⁵ In Old and American Spanish, the interrogative wh-form *qué tanto(s)* ‘what so much/many’ also combines with nouns and functions as a verbal modifier, alternating with *cuánto(s)* ‘how much/many’:

- (i) a. Los titulares que no vinieron, ¿qué tanta falta pueden hacer?

the holders that not came what so much need can.3PL do

‘The holders that did not come, how much are they missed?’

- b. ¿Qué tanto cambió el equipo desde el adiós de Carlos B.?

what so much changed the team from the goodbye of Carlos B.

‘How much did the team change since Carlos B’s goodbye?’

(Octavio de Toledo & Sánchez López 2009:1026-27)

‘He wanted to know how good those stories were...’

As shown in the Old and American Spanish examples in (7) and (8), taken from the CORDE and CREA databases, respectively, just like the rest of Spanish degree wh-forms (see footnote 3), *qué tan* combines with gradable adverbs as well:

(7) a. Informado el capitán de qué tan lejos estaba su pueblo...

informed the captain of what so far was his village

‘The captain being informed of how far his village was...’

(Fray Bernardino de Sahagún, *Historia general de las cosas de Nueva España*, 1576)

b. Yo te diré... qué tan cerca o lejos has dado en el blanco.

I you will.tell what so close or far have hit in the mark

‘I will tell you... how close or far you have hit the mark.’

(Tirso de Molina, *Cigarrales de Toledo*, 1624)

(8) a. No sé qué tan lejos estemos. (Mexico)

not know.1SG what so far are.SUBJ.1PL

‘I do not know how far we might be.’

b. Eso depende de qué tan bien la haya cuidado... (Colombia)

that depends of what so well her has.SUBJ.3SG cared

‘That depends on how well he has looked after her...’

Cómo de ‘how of’ originated in the XVIIth century. This wh-expression is currently used in Peninsular Spanish as the common way to ask for the degree in which a property is possessed in both formal and informal language, and it is also attested in

some varieties of American Spanish, like those spoken in Argentina, Cuba and Paraguay, alternating with *qué tan* in these areas.

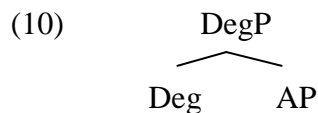
The adjectival wh-form *cuánto de* ‘how much of’ is, to end up, increasingly being used nowadays in those Spanish dialects in which *cómo de* is also used. The CREA examples in (9) illustrate this recent construction:

- (9) a. ...somos distintos. Pero, ¿cuánto de distintos? (Spain)
 are.1PL different. But how.much of different
 ‘... we are different. But, how different?’
- b. ¿Cuánto de cierto es eso? (El Salvador)
 how much of true is that
 ‘How true is that?’
- c. La velocidad y amplitud de rotación del péndulo (Argentina)
 the speed and amplitude of rotation of.the pendulum
 sugerirán cuánto de incompatibles son.
 suggest.FUT.3PL how much of incompatible are.3PL
 ‘The pendulum’s speed and amplitude of rotation will indicate how
 incompatible they are.’

In the next Section, I will offer an account of the pattern of lexical variation in (2) based on the idea that all interrogative degree items in Spanish (at least) syntactically include two different components (a wh-word and a degree variable), which are overtly

realized in the Old and American Spanish wh-form *qué tan* ‘what so’.⁶ Before presenting my proposal in detail, I will first set out my assumptions on the syntactic structure of adjectival degree expressions, and on the semantics of both gradable adjectives and degree wh-questions.

I will adopt, on the one hand, the standard syntactic analysis of adjectival degree expressions in current generative research depicted in the structural representation in (10), whereby the degree operator is taken to be the head of a Degree Phrase in the extended projection of the adjective, and has AP as its complement (see Abney 1987, Grimshaw 1991, Corver 1997a,b, and much subsequent work). On the semantics of the structure in (10), I will share, on the other hand, Kennedy (1997)’s analysis of gradable adjectives and degree morphology, in which adjectives denote functions from individuals to degrees, and degree morphemes denote functions from gradable adjectives to properties of individuals.



⁶ Building on previous work on the complex structure of DegPs in English and Dutch (Corver 1997a,b, among others), my proposal is inspired by the observation in Sánchez López (2006:48) and Octavio de Toledo & Sánchez López (2007:841) that *tan* in Spanish *qué tan* is a degree word, and goes hand in hand with the idea in Sáez (2017:66, 74) that the two core semantic components of adjectival wh-exclamatives (the exclamative force operator and the degree variable) are mapped into two different syntactic nodes in the extended projection of the adjective.

As for the semantics of wh-questions, I will assume the well-known approach in Hambling (1973) and Karttunen (1977), by which an interrogative clause denotes a set of propositions, namely, those propositions that count as answers to it. Under this approach, a wh-question, for instance, like *Who came?* sets up an open-choice situation between a set of propositions expressed by sentences of the form “x came”, with contextual restrictions on the domain for quantification (e.g., {John came, Peter came, Mary came}). In line with these insights, the denotation of wh-questions has been standardly conceived within the generativist tradition as an operator-variable semantic structure, so that the meaning of the wh-question I am using here for illustration will be essentially represented at the level of Logical Form as in (11b) (see, e.g., Chomsky 1977:83):

- (11) a. Who came?
 b. For which x, x a person, x came.

In (11b), the wh-word *who* functions as a quantifier of some sort that binds a variable ranging over individuals, and the values of the variable are, in this case, the different entities that would make the proposition *x came* to be true in a given context and that give rise to the set of propositions specified above (see Bosque & Gutiérrez-Rexach 2009:509-510).

In the specific case of degree wh-questions, I will therefore adhere to the standard view that a degree question’s LF contains a variable that ranges over degrees, and is bound by a degree-question operator. According to this analysis, an English sentence

like (12a) corresponds to the (informal) logical form in (12b) (see Abrusán & Spector 2008, and the references therein):

- (12) a. How fast is Jack driving?
b. for what degrees *d* of speed, is Jack driving *d*-fast?

With these ideas on the syntax and semantics of adjectival degree (wh-)expressions in mind, I will next provide an analysis of the pattern of variation in the lexical form of Spanish degree wh-items illustrated in (2) above.

3. The proposal

As pointed out in the previous Section, my account of the pattern of lexical variation in (2) will build on the precise identification of the nature of the two components in the Old and American Spanish adjectival interrogative degree wh-form *qué tan* ‘what so’. In taking up this task, I will first discuss the analysis of the Italian adjectival exclamative degree wh-form *che tanto* in Zanuttini & Portner (2003), showing that it cannot apply to Spanish *qué tan*.

Zanuttini & Portner (2003) hold that interrogative and exclamative wh-phrases differ in that the latter include a component not present in the former, which is related to the factive operator *that*, in their view, is exclusive to exclamative clauses. Since it only occurs in exclamatives, they gloss this component as an ‘E-only’ morpheme. These authors argue that the E-only morpheme is lexically realized as the form *tanti* appearing

in the complex wh-expression with nouns *che tanti* ‘which many’ in some Italian dialects. As shown in (13), they take as evidence for this claim the fact that *che tanti* is not used in interrogative clauses in these dialects (the examples and judgments are theirs):

- (13) a. Che tanti libri che ha comprato!
 which many books that has bought
 ‘How very many books s/he bought!’
- b. *Che tanti libri ha comprato?
 which many books has bought

As represented in (14a), Zanuttini & Portner further propose that *tanti* is a combination of the (E-only) morpheme *t-* and the form *-ant-*, which corresponds to *much* or *many* in English *how much/many*, and also occurs in Italian *quanti* ‘how many’, specifying the ‘measure’ (numbers of individuals in this case) by which the wh-word quantifies. As shown in (14b), they analyse Italian wh-phrases containing *che tanto* plus an adjective, which are also restricted to exclamative clauses, in a similar way: *tanto* in (14b) represents both the E-only morpheme and a measure component, which now corresponds to an amount or quantity often referred to in the formal literature on adjectives as degrees.

- (14) a. che t-anti libri
 WH E-ONLY+MEASURE SORTAL
- b. che t-anto alto

There is an obvious reason why Zanuttini & Portner's analysis of the internal make-up of Italian exclamative *che tanto* cannot be extended to Spanish *qué tan*: as we know, unlike *che tanto*, *qué tan* also occurs in interrogative clauses in Spanish.⁷ This is again illustrated in Old and American Spanish examples like the ones in (3a) and (5a), repeated below:

- (15) a. ¿Qué tan largo deve ser un poema heroico?
 what so long must.3SG be a poem heroic
 ‘How long must a heroic poem be?’
- b. ¿Más o menos qué tan grande es?
 more or less what so big is
 ‘How big is it more or less?’

A different analysis of *tan* in Spanish interrogative *qué tan* is thus needed. I share in this respect the idea in Sánchez López (2006:48) that *tan* in *qué tan* is a degree word. That this view is on the right track is supported by the fact that *tan* ‘so’ independently heads both equality comparison structures (16a) and result clauses (16b) in all Spanish dialects:

- (16) a. Ana es tan alta como María.
 Ann is so tall as Mary

⁷ The same fact obtains with Spanish *qué tanto(s)+N* (see fn. 5 and the discussion in Section 4).

‘Ann is as tall as Mary.’

b. Ana es tan gorda que no cabe por la puerta.

Ann is so fat that not fits by the door

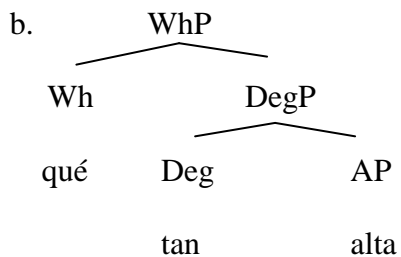
‘Ann is so fat that she cannot go through the door.’

Assuming that *tan* is a degree word, the internal structure I have in mind for the Old and American Spanish interrogative wh-form *qué tan* is represented in (17b):⁸

(17) a. ¿Qué tan alta es Ana?

what so tall is Ann

‘How tall is Ann?’



⁸ The analysis of Spanish *qué tan* in (17b) is inspired in Johnson (2016), who takes English interrogative *how* to be semantically equivalent to *which degree*, in the light of the fact that, just like definite wh-words like *which*, that contains a variable and thus quantifies over functions, *how* questions also introduce quantification over functions, as shown in examples like (i), in which the values of deg are made to vary with the values of *every*:

(i) A: How rich is almost every heiress?

B: More than her chauffeur.

In the structure in (17b), the wh-quantifier *qué* ‘what’ and the degree item *tan* ‘so’ head a Wh-Phrase and a Degree Phrase in the extended projection of the adjective (see Section 2), respectively. As for the semantic import of these two functional categories, building on my assumptions on the semantics of (degree) wh-clauses in the previous Section, I would like to suggest that the syntactic structure in (17b) configurationally maps the operator-variable semantic structure underlying degree wh-questions, so that *qué* expresses wh-quantification over degrees, also functioning as a clause-typing marker conveying interrogative illocutive force, and *tan* instantiates the degree variable.⁹

Note that Spanish *qué tan*+A might also be syntactically analyzed, in principle, as in (18a) or (18b):

- (18) a. [DegP [WhP *qué*] [Deg' *tan* [AP *alta*]]]
 b. [DegP [Deg' [Deg *qué tan*] [AP *alta*]]]

⁹ *Qué tan* ‘what so’ is also used in adjectival degree wh-exclamatives in Old and American Spanish (see Octavio de Toledo & Sánchez López 2009). The syntactic analysis of interrogative *qué tan* in (17b) could thus apply to exclamative *qué tan* as well, assuming that wh-exclamatives are degree expressions (Castroviejo 2006; Rett 2008, 2011) also containing an operator-variable structure in which the exclamative wh-operator is now associated with a degree variable expressing high degree (Gutiérrez-Rexach & Andueza 2011; Sáez 2017). More field work is needed, however, in order to determine the status of *tan* in exclamative *qué tan*: in the American Spanish dialects in which it is used, this form seems to alternate with exclamative *qué*, which leaves open the possibility that *tan* in exclamative *qué tan* may function as an intensifier, just like English *so* in sentences like *How (so) nice she is!* I leave this issue for further research.

In (18a), the wh-operator *qué* is generated as a phrasal (maximal) projection in the specifier position of a DegP headed by *tan*. In (18b), *qué tan* is taken to be a complex degree quantifier (a single lexical unit), which is inserted under the head of DegP. These two alternative conceivable analyses of *qué tan* are, however, to be discarded. The analysis in (18a) predicts that *qué*, now being a maximal projection, should move alone to the specifier position of a Complementizer Phrase in the sentential left-periphery ([Spec, CP]), leaving *tan+A* in situ, but it does not (19a). And in the structure in (18b), the degree word *tan* and the adjective do not form a constituent, contrary to facts, as they can behave as a syntactic unit in a coordination structure (19b).¹⁰

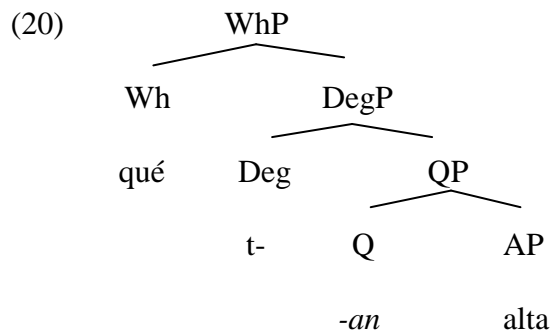
- (19) a. *¿Qué es Ana tan alta?
 what is Ann so tall
- b. ¿Qué [tan larga] y [tan ancha] es esa mesa?
 what so long and so wide is that table
- ‘How long and wide is that table?’

These observations lead me to conclude that the Old and American Spanish interrogative wh-form *qué tan* has the syntactic structure in (17b): in this structure, the degree word *tan* and the adjective do form a constituent (a DegP), which can therefore be coordinated, and *qué* is analyzed as a head that cannot raise alone to the sentential left periphery, since movement of this item on its own would involve extraction of an

¹⁰ The (un)grammaticality of the sentences in (19) has been checked with native speakers of Mexican and Venezuelan Spanish.

X^0 (a minimal projection) to [Spec, CP], a position that must be occupied by a phrasal (maximal) projection, thus violating the well-established Uniformity Condition on movement chains stating that “a chain is uniform with regard to phrase structure status”, where “phrase structure status of an element is its (relational) property of being maximal, minimal, or neither” (Chomsky 1995:253).

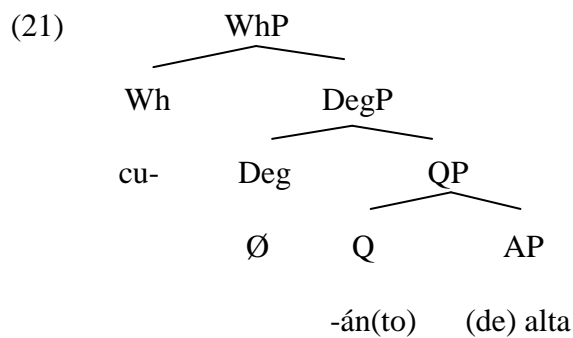
Following the ideas in Zanuttini & Portner (2003) on the internal make-up of adjectival degree wh-phrases discussed above, the analysis in (17b) can be further elaborated by decomposing *tan* as *t-* plus *-an*, as in (20):



In the syntactic representation in (20), the interrogative force operator *qué* heads a WhP in the extended projection of the adjective, the morpheme *t-*, heading a DegP, instantiates the variable bound by *qué*, and the form *-an*, corresponding to Zanuttini & Portner’s measure component, which refers to the relevant measure units for quantification (degrees in this case), projects a QP (*t-* and *-an*-, both being bound forms, end up forming a single word at PF).¹¹

¹¹ The structure in (20) has to be further expanded in order to capture the fact that *qué tan*, like all adjectival degree (wh)-forms in Spanish, can combine with *poco* ‘little’ preceding the adjective (ia). As shown in (ib), this can be implemented by including in (20) an additional

With this in mind, I would like to propose that the rest of adjectival interrogative degree wh-forms in Spanish (i.e. *cuán* ‘how much’, *cómo de* ‘how of’, and *cuánto de* ‘how much of’) have the same internal structure as *qué tan*, the only difference being that the degree variable in all these three forms (and the measure component in *cómo de* as well) are not phonetically realised. My proposal is represented in the structures in (21) and (22):



functional layer, which Sáez (2017) calls an “Orientation Phrase” (OrP), directly dominating AP, and encoding the upward/downward orientation (from a contextual standard) for a particular degree (see Pastor 2008):

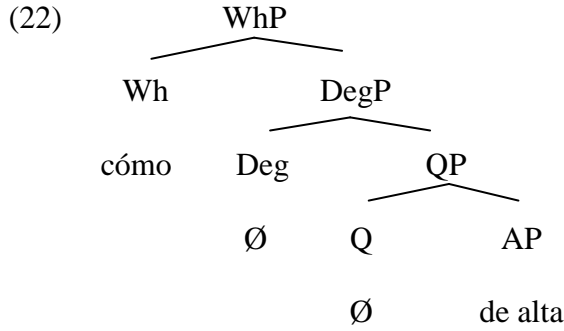
(i) a. ¿Qué tan poco alta es Ana?

whatso little tall is Ann

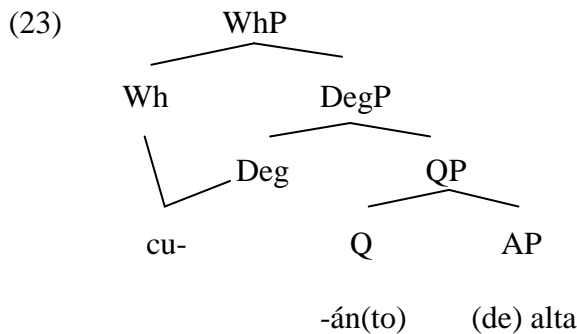
‘How little tall is Ann?’

b. [_{WhP} [_{Wh} qué] [_{DegP} [_{Deg} t-] [_{QP} [_Q -an] [_{OrP} [_{Or} Ø/poco] [_{AP} alta]]]]]

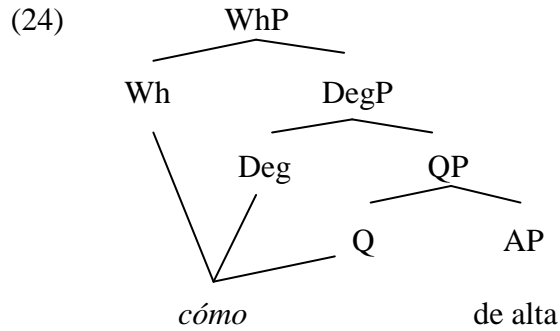
As represented in (ib), in cases of upward **orientation**, the head of OrP is an empty category in current Spanish, which was phonetically realized as *mucho* ‘much’ in Old Spanish, where forms like *cuán/tan/muy mucho*+A are attested (Bosque & Masullo 1998; Pastor 2008) (a reviewer observes that this is also the case with *qué* for *qué mucho* (N) ‘lit. what much (N)’, cf. *qué muchas avellanas* ‘what many hazelnuts’ in the 14th-century *Libro de Buen Amor*).



In (21) and (22), just like *qué* in *qué tan*, both the bound form *cu-* in *cuán* and *cuánto de* and *cómo* in *cómo de* are analysed as the lexical expression of the interrogative wh-operator. An alternative analysis of *cómo* and *cuán(to)* within the Distributed Morphology framework, dispensing with null categories, would take these items to be an instance of cumulative exponence, which can be captured by means of a fusion operation (Halle & Marantz 1993; Noyer 1997) in the post-syntactic Morphological component, mapping all (or a part of) the functional heads in (21)-(22) into one single morphological node, where the phonological forms *cu-* and *cómo* are late inserted at PF.¹² This is schematically represented in (23) and (24):



¹² The same result could be obtained by means of so-called “Phrasal Spell Out” (see Fábregas 2014 and the references therein).



An argument in favor of the analyses in (21) and (22) is, however, that a null Deg independently occurs in other Spanish degree constructions. A covert Deg has been convincingly argued to be present, in particular, in the non-wh-constructions in (25): Kennedy (1997) shows that a null positive degree morpheme *Pos* occupies the Deg position in constructions with bare gradable adjectives, thus licensing the standard of comparison phrase (25a), and both Gutiérrez-Rexach (1999) and Masullo (2003) claim that an empty category associated with a [DEG MAX] feature is present in so-called “hidden exclamatives” in Spanish (25b).

- (25) a. Juan es [Ø]_{Deg} alto para su edad.

John is tall for his age

‘John is tall for his age.’

- b. ¡Juan es [Ø]_{Deg} de fuerte...!

John is of strong

‘John is so strong...!’

To complete my account of the internal make-up of adjectival degree wh-phrases in current Spanish, sharing the ideas in Masullo (2003), Morón Pastor (2004) and Octavio

de Toledo & Sánchez López (2009), I will finally consider that *de* ‘of’ in *cómo/cuánto de+A* is a (partitive) Case marker,¹³ thus extending to the adjectival domain the well-known analysis of preposition *de* heading the PP-complement in (pseudo)partitives as a Case marker (see Martí 2010 and the references therein). In taking this view, I am adopting the version of the Case Filter formulated by Kayne (2002) in (26), whereby not just nouns, but also adjectives, receive Case, as manifested in languages like Russian, so

¹³ Under this analysis, a null partitive Case marker would also precede the adjective in *cuán/qué tan+A*. I leave open the possibility that (overt and covert) *de* projects a Case Phrase dominating AP, as proposed by Martí (2010) for preposition *de* in the nominal partitive construction.

Note, however, that both *cómo de* and *cuánto de*, unlike *cuán* and *qué tan*, allow for the discontinuous (non-pied-piping) structures in (ia), alongside the pied-piping structures in (2c,d):

- (i) a. ¿Cómo/Cuánto es Ana de alta?
 how/how much is Ann of tall
 ‘How tall is Ann?’
 b. *¿Cuán/Qué tan es Ana alta?
 how much/what so is Ann tall

In the case of discontinuous [*cómo/cuánto...de+A*], following Eguren & Pastor (2020), I take *de* to be a true preposition with an aboutness interpretation, which allows for a reanalysis operation whereby *de+A* becomes a verbal adjunct and *cómo/cuánto* is now an independent constituent (a maximal projection) that moves to the CP domain on its own, thus giving rise to the non-pied-piping structure in (ia). Eguren and Pastor also argue that, given that reanalysis must always have an interpretive effect to take place (Bosque and Gallego 2014), this can only be obtained in the cases under consideration if *de* ‘of’, which can convey an aboutness meaning, is present. Reanalysis is therefore not possible with *cuán* and *qué tan*, which are not followed by *de*, and these wh-forms only occur in pied-piping structures (ib).

Kayne points out, in which all nominal ([+N]) elements in a DP bear morphological Case:

(26) +N Case Filter: Every nominal (+N) element requires Case.

Summing up so far, in this Section, I have argued that adjectival interrogative degree wh-expressions in Spanish (at least) include two separate components: a wh-operator, which quantifies over degrees and provides interrogative force, and a degree morpheme, functioning as a degree variable. These two semantic (and syntactic) components are phonetically realized in the Old and American Spanish wh-form *qué tan* ‘what so’, whereas in the rest of adjectival degree wh-forms (*cuán* ‘how much’, *cómo de* ‘how of’ and *cuánto de* ‘how much of’), the wh-operator is overt, but the degree variable is null. Under this analysis, dialectal (and diachronic) variation in the form of adjectival degree wh-phrases in Spanish results from differences in the phonological exponence of the wh-operator and from the overt or null realization of both the degree variable and the partitive marker *de* ‘of’. Assuming late lexical insertion, my account of the pattern in (2) thus conforms to the mainstream idea in current Minimalism that most (if not all) syntactic variation is confined to the process of “externalization” at the PF-branch of grammar, which converts internal linguistic representations in ordered sequences of sounds or gestures (see, e.g., Chomsky 2010, Berwick & Chomsky 2011, 2016, Berwick et al. 2013, Boeckx 2011, 2016).

In the next Section, I will extend the analysis of the internal structure of interrogative degree wh-forms in Spanish presented above to the nominal wh-items *cuánto(s)* ‘how much/many’ and *qué tanto(s)* ‘what so much/many’, as well as to the

manner wh-expressions *cómo* ‘how’ and *qué tal* ‘what such’, and, more generally, to all interrogative wh-forms in this language. I will also tentatively put forward the idea that interrogative wh-forms **syntactically** consist of two different components, a wh-operator and a variable, across languages, which will be shown to have relevant implications on the operations and rules that have been used in the syntactic and semantic analysis of wh-questions within the framework of Generative Grammar.

4. Extensions and implications

As illustrated in (27), wh-phrases with nouns asking for a quantity or amount can be headed by two different wh-forms in Spanish: *cuánto(s)* ‘how much/many’ and *qué tanto(s)* ‘what so much/many’.

- (27) a. ¿Cuánt-**o-s** libro-**s** has leído?
 how many **.MASC.PL** book.**PL** have.2SG read
- b. ¿Qué tant-**o-s** libro-**s** has leído?
 what so many **.MASC.PL** book.**PL** have.2SG read
- ‘How many books have you read?’

The interrogative wh-word *cuánto(s)* combines with nouns in most Spanish dialects, whereas the Old Spanish complex nominal wh-expression *qué tanto(s)*, just like *qué tan* in the adjectival domain (see Section 2), is only currently used in American Spanish, often alternating with *cuánto(s)* (for details, see Octavio de Toledo & Sánchez López

2009). Examples of *qué tanto(s)* preceding count and mass nouns in both root and embedded wh-questions in Old and American Spanish, taken from the CORDE and CREA databases, respectively, are offered in (28) and (29):

- (28) a. ¿Qué tantos pasteles te atreverías a comer de una comida?
 what so many cakes CL would.dare to eat of one meal
 ‘How many cakes would you dare eat in a meal?’

(Juan de Timoneda, *El sobremesa y alivio de caminantes*, 1562-1569)

- b. ¿Qué tanta barba es menester que tenga?
 what so much beard is necessary that have.SUBJ.1SG
 ‘How long should my beard be?’

(Juan de Timoneda, *El sobremesa y alivio de caminantes*, 1562-1569)

- c. Le preguntaron que qué tantos dineros tenía.
 him asked.3PL that what so many coins had.3SG
 ‘They asked him how much money he had.’

(Sebastián de Orozco, *Libro de los proverbios glosados*, 1570-1579)

- d. Y preguntó qué tanto pan le davan a comer.
 and asked.3SG what so much bread him gave.3PL to eat
 ‘And he asked how much bread they would gave him to eat.’

(Anónimo, *Traducción de Tirante el Blanco*, 1511)

- (29) a. ¿Y qué tantas repercusiones puede tener esa angustia? (Colombia)
 and what so many repercussions may have that anguish
 ‘And how many repercussions may that anguish have?’

- b. ¿Qué tanta falta pueden hacer? (Colombia)

what so much need can.3PL do

‘How necessary can they be?’

c. ...pensando sabe Dios qué tantas cosas.

(Mexico)

thinking knows God what so many things

‘...thinking who knows how many things.’

d. No sé qué tanto miedo le tienen a García.

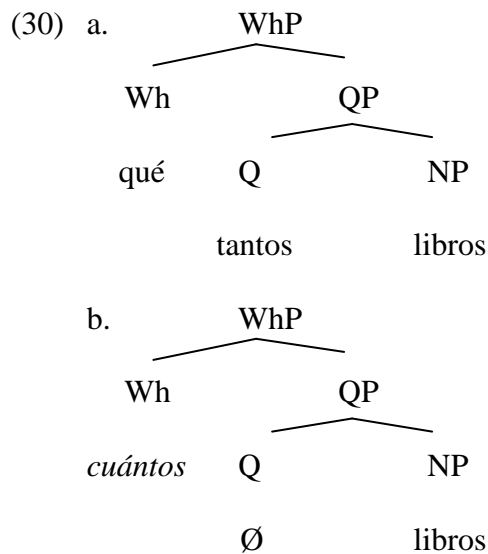
(Peru)

not know.1SG what so much fear him have.3PL to García

‘I don’t know how afraid they are of García.’

In line with the analysis of the internal structure of adjectival *qué tan* in the previous Section, I would like to propose that the Old and American Spanish complex nominal wh-form *qué tanto(s)* also overtly manifests the operator-variable structure in wh-questions, so that *qué* functions once again as a clause-typing marker that expresses wh-quantification, and *tanto(s)* instantiates a variable, ranging over amounts in this case (30a). Under this analysis, *cuánto(s)* would have the same syntactic underlying structure as *qué tanto(s)*, containing (at least) a wh-operator and a variable over amounts, which is not pronounced (30b).¹⁴

¹⁴ Like *tan* in *qué tan*, *tantos* in *qué tantos* could be further decomposed as *t-* plus *-antos* (see the previous Section), the former being the variable bound by the wh-operator *qué*, and the latter instantiating Zanuttini & Portner (2003)’s measure component, which now corresponds to amounts or quantities, and also bears gender and number agreement markers with the noun (*qué tantos* = *qué t-ant-o-s*). Under this fine-grained analysis of *qué tantos*, *cuántos*, like adjectival *cuán*, would be formed by the wh-operator *cu-*, a null variable over amounts, and the complex morphological form *-antos* (i.e. *cuántos* = *cu-Ø-ánt-o-s*).



The idea that the Spanish interrogative nominal wh-form *cuánto(s)* both semantically and syntactically parallels *qué tanto(s)* has been previously put forward by López Palma (1999). López Palma (1999:239), who does not take into consideration the fact that *qué tanto(s)+N* does, in fact, exist in Old and American Spanish, holds that *cuántos+N* includes three semantic features: an interrogative item, that she represents as “qué”, a quantitative determiner symbolized as “tantos” that is asked for by “qué”, and a noun denoting the restriction on the variable quantified by “tantos” (31a). According to this author, the syntactic structure of an interrogative wh-phrase like *cuántas personas* ‘how

My Mexican Spanish informants find the coordination of *tanto(s)+N* deviant: ??¿*Qué tanta cerveza y tanto vino has bebido?* ‘lit. What so much beer and so much wine have you drunk? I do not have a definite explanation for this fact. Note, in any case, that all my informants indicate that they also use *cuánto(s)+N*, some of them say that they only use *qué tanto* with mass nouns, and for some of them *qué tanto+N* has an approximative meaning, which is lacking in *cuánto*. All this might indicate that *qué tantos*, as opposed to *cuántos*, is somehow lexicalized.

many people’, in which all these semantic features are expressed, would thus be represented as in (31b).

- (31) a. [interrogator qué [variable tantos [restriction x is N]]]
 b. [WhP qué [QP tantas [NP e personas]]]

My analysis of the internal structure of both *qué tan* and *qué tantos* can also be extended to the Spanish complex interrogative wh-form *qué tal* ‘what such’, which, as illustrated in (32), alternates in all varieties of current Spanish with the interrogative adverb *cómo* ‘how’ when this wh-item has an evaluative manner interpretation (see RAE-ASALE 2009: §22.14x):¹⁵

- (32) a. ¿Cómo/Qué tal estás?

¹⁵ As the two reviewers point out, *qué tal* can also combine with a noun, asking for a quality assesment in this case: e.g., *¿Qué tal tiempo hace?* ‘lit. What such time makes’ (How’s the weather?) (RAE-ASALE 2009: §22.14t). Under my proposal on the internal syntactic structure of wh-phrases, *tal* in *qué tal+N* would project a DP and instantiates a variable over types: [WhP qué [DP tal [NP tiempo]]].

A reviewer draws my attention to the fact that, unlike *tan+A* in *qué tan+A* (19b), *tal+N* in *qué tal+N* cannot participate in coordination structures: **¿Qué tal padre y tal profesor es?* ‘lit. What such father and such teacher is?’. This contrast could be explained by claiming that *tal* merges with *qué* in the post-syntactic morphological component, resulting in a lexical unit: the idea that *qué tal* is lexicalized is supported by the observation in RAE-ASALE (2009: §22.14t) that *qué tal+N* only occurs with certain predicates: e.g., **¿Qué tal(es) novela(s) has leído?* ‘lit. What such novel(s) have you read?’.

how/what such are.2SG

‘How are you?’

b. ¿Cómo/Qué tal se porta?

how/what such SE behave.3SG

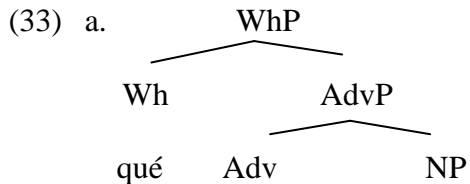
‘How does she behave?’

c. ¿Cómo/Qué tal juegan al fútbol?

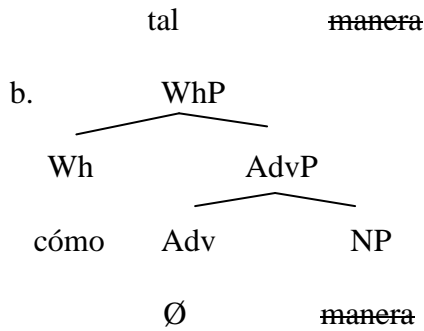
how/what such play.3PL to.the soccer

‘How do they play soccer?’

In my view, *qué* in *qué tal* expresses wh-quantification also in this case and *tal* instantiates a variable now ranging over manners (33a). As for the manner adverb *cómo*, this wh-form would share the internal structure of *qué tal*, thus containing a wh-operator and a variable, which is not phonetically realized (33b).¹⁶



¹⁶ *Tal* in *qué tal* could be further analyzed as the combination of the variable *t*- and the manner measure component *-al* (see the previous footnote). Under this view, making use of empty categories for both the variable and the measure component, just like the degree wh-form *cómo* (see Section 3), the manner wh-form *cómo* would be decomposed as [_{wh operator} *cómo* [_{variable} \emptyset [_{measure component} \emptyset]]]. A reviewer indicates that the structure in (33b) should be further elaborated, since *cómo* does not correspond to a NP, but to a PP (i.e. *como* = ‘in which manner’).



Taking the Spanish complex interrogative wh-expressions *qué tan*, *qué tantos* and *qué tal* to be the overt manifestation of the operator-variable structure in degree, amount and manner wh-questions, respectively, as I am proposing in this paper, leads me to entertain the idea that wh-forms asking for other types of entities can also be syntactically analyzed as the combination of a wh-operator and a variable. This has been proposed by López Palma (1999) and Johnson (2009) in the case of Spanish and English wh-words asking for individuals.

As depicted in the structural representation in (34a), López Palma (1999:235) claims that the Spanish wh-form *quién* ‘who’ can be lexically decomposed in the following elements: (a) the interrogative marker, (b) an existential quantifier, and (c) the variable of this quantifier and its restriction, endowed with a [+human] feature. Building on the insight in Matthewson (2001) that certain non-interrogative quantifying expressions contain a covert definite determiner that restricts the domain of quantification, Johnson (2009), analyzes, on his part, English quantificational DPs like *which book* as question phrases that have hidden within them definite descriptions headed by a silent *the*, which also restricts the domain of quantification and has the additional role of a variable over

individuals like the one found in so-called “donkey-sentences” (e.g., *Every farmer that owned a donkey fed the donkey*) (34b).¹⁷

- (34) a. [WhP (interrogator) *qué* [QP (variable) *una* [NP *persona*]]]
 [WhP (interrogator) *which* [QP (variable) *a* [NP *person*]]]
 b. [QP *which* [DP [D *the*] [NP *book*]]]

From the discussion in this Section, it can thus be concluded that all interrogative wh-expressions in Spanish **syntactically** include (at least) two different components, a wh-operator and a variable, the latter ranging over different types of entities (degrees, amounts, manners, individuals, etc.).¹⁸

Taking a step forward, the analysis of the Old and American Spanish wh-expression *qué tan(tos)* as the combination of the wh-operator *qué* and a variable over amounts or degrees (*tantos/tan*) can also be argued to apply to the French complex wh-form *combien*. As indicated in Octavio de Toledo & Sánchez López (2007) and in Sánchez López & Octavio de Toledo (2010), *combien*, which replaced the Latin wh-form *quantus* in early stages of the language, nowadays occurs in interrogative and

¹⁷ Note that the variable over individuals is taken to be an existential quantifier in López Palma (1999) (34a) and a silent definite article in Johnson (2009) (34b). I am not taking any stance on this point, which I leave for further research.

¹⁸ The idea that Spanish wh-items have a complex internal structure is in the spirit of the decompositional account of the different forms manner *how* takes in colloquial Scandinavian developed in Vangsnes (2008). In his analyses, Vangsnes does not isolate, however, a specific component corresponding to a variable over manners, as I have proposed for Spanish *qué tal* ‘what such’ and *cómo* ‘how’.

exclamative clauses combining with both nouns (35a) and adjectives (35b,c), its use being restricted to formal or literary language in the latter case (the examples in (35b,c) are taken from Gérard, 1980):¹⁹

- (35) a. Combien de femmes?!
 how.well of women
 ‘how many women?!’
- b. Combien différent de celui-là!
 how.well different of that
 ‘How different from that one!’
- c. Combien vive est ma joie!
 how.well big is my joy
 ‘How big is my joy!’

As expressed in the English glosses of the French examples above, “the word *combien* is arguably bimorphemic, with the second morpheme equal to *bien* (well) and the first essentially the same as the *comme* in *Comme il est petit!*, *Vous considérez Jean comme un homme intelligent*, *Comme j’ai dit...*” (Kayne 2005:34; see also Gérard 1980: 26). Sharing this view, Sánchez López & Octavio de Toledo (2010) further stress that there is a parallelism between the Spanish complex wh-forms *qué tan* and *qué tantos* and French *combien*, since in both cases we can isolate an interrogative/exclamative element (*com* or *qué*) and a quantitative item (*bien* in French, *tan/tantos* in Spanish). In the light

¹⁹ The fact that *combien*+A is not used in informal language in current French might explain why some speakers take this construction to be ungrammatical (see, e.g., Kayne 2005:34).

of this apparent parallelism between the wh-forms under discussion, I will extend my analysis of the internal structure of Spanish *qué tantos* to French *combien*, so that *com-*, like *qué*, is a wh-operator conveying interrogative or exclamative force, and *bien*, like *tan(tos)*, instantiates a variable over amounts or degrees. That this might well be the case is supported by the fact that *bien*, just like *tan(tos)* in Spanish (see Section 2), can independently function as a nominal quantifier or a degree word in French:

- (36) a. bien de personnes
 well of people
 ‘lots of people’
 b. bien petit
 well small
 ‘very small’

To conclude this Section, it must be noted that my analysis of the internal structure of the Spanish and French complex wh-expressions *qué tan(tos)*, *qué tal* and *combien*, together with the analyses of wh-phrases asking for individuals in Spanish and English in López Palma (2009) and Johnson (2009) (see above in the text), leave open the possibility that all interrogative wh-forms may contain two different components (a wh-operator and a variable) across languages. An argument in favor of this idea is that it allows us to dispense with so-called “trace conversion rules” turning lower copies/traces into structures that contain variables (Fox 1999, 2003). As Johnson (2009) points out, by assigning an internal structure containing a wh-operator and a variable to interrogative wh-forms, we can capture the fact that the wh-item in a wh-chain acts

semantically like a variable in its lowest position, and like the binder of that variable in its highest position, as it is commonly assumed, without resorting to an special semantic trace conversion rule. Adopting the copy theory of movement (see Nunes 2011 and the references therein), and also adhering to the idea in Chomsky (1993) that different parts of different copies in a wh-chain can be interpreted at LF,²⁰ I propose in this respect that, in the case of wh-questions introduced by the Spanish adjectival interrogative wh-form *qué tan*, for example, only the wh-operator *qué* is semantically interpreted in [Spec, CP], whereas the degree variable *tan* (and its restrictor) are semantically interpreted in their base position. This is represented in (37b), where the elements in the wh-chain that are interpreted at LF are in bold face, and the whole wh-phrase is deleted in its base position at PF:²¹

(37) a. ¿Qué tan alta es Ana?

what so tall is Ann

‘how tall is Ann?’

b. [_{CP} [**qué** tan alta] [_C Ø [_{IP} es Ana ~~qué tan alta~~]]]

²⁰ Nunes (2011:§7.4.2) shows that different parts of different copies can also be phonetically realized at PF.

²¹ A different implementation of the idea that the assignment of a complex structure to wh-phrases can mimic the effects of a Trace Conversion rule can be found in Johnson (2009). In his analysis of English question phrases like *which book* as [_{QP} *which* [_{DP} [_D ~~the~~] [_{NP} *book*]]] (see above in the text), Johnson argues, within a Multidominance approach to movement, that “movement” puts the phrase headed by *the* in two positions, whereas *which* is Late-Merged only in the higher position, and further provides a semantic explanation for the fact that [*the*+N] is semantically uninterpreted in the higher of its positions.

The analysis in (37b) can be straightforwardly extended, in my view, to the rest of interrogative wh-phrases in Spanish (and to wh-phrases in other languages as well), including those in which the variable bound by the wh-operator is null.

5. Conclusions

In this paper, I have studied a distinctive feature of adjectival degree wh-questions in current Spanish: the existence of a complex pattern of variation in the lexical realization of the wh-expression. I have proposed that Spanish interrogative degree wh-forms (i.e. *cuán* ‘how much’, *qué tan* ‘what so’, *cómo de* ‘how of’, and *cuánto de* ‘how much of’) all have an internal structure including (at least) two components, a wh-operator and a degree variable, which are overtly manifested in the Old and American Spanish degree wh-form *qué tan*. Under this analysis, together with differences in the phonological exponents of the wh-operator, variation in the lexical expression of degree wh-forms in Spanish reduces to the overt or null realization of both the degree variable and the partitive Case marker *de* ‘of’. I have also argued that an analysis along these lines can be extended to all interrogative wh-forms in Spanish, and I have finally entertained the idea that the analysis of wh-forms in Spanish interrogative clauses I am presenting in this work might well apply in other languages as well.

References

- ABNEY, S. 1987. *The English noun phrase in its sentential aspect*. MIT. PhD diss.
- ABRUSÁN, M. & SPECTOR, B. 2008. An interval-based semantics for degree questions: negative islands and their obviation. *Proceedings of the 27th West Coast Conference on Formal Linguistics*, eds. N. Abner & J. Bishop, 17–26. Somerville, MA: Cascadilla Proceedings Project.
- BERWICK, R. C. & CHOMSKY, N. 2011. The biolinguistic program: The current state of its development. *The biolinguistic enterprise: New perspectives on the evolution and nature of the human language faculty*, eds. A. M. DiSciullo & C. Boeckx, 19–41. Oxford: Oxford University Press.
- BERWICK, R. C., FRIEDICI, A. D., CHOMSKY, N. & BOLHUIS, J. J. 2013. Evolution, brain, and the nature of language. *Trends in Cognitive Sciences* 17.2:89–98.
- BERWICK, R. C. & CHOMSKY, N. 2016. *Why only us. Language and evolution*. Cambridge, MA: The MIT Press.
- BOECKX, C. 2011. Approaching parameters from below. *The biolinguistic enterprise: New perspectives on the evolution and nature of the human language faculty*, eds. A. M. Di Sciullo & C. Boeckx, 205–221. Oxford: Oxford University Press.
- BOECKX, C. 2016. Considerations pertaining to the nature of logodiversity. *Rethinking parameters*, eds. L. Eguren, O. Fernández Soriano & A. Mendikoetxea, 64–104. Oxford: Oxford University Press.
- BOSQUE, I. & MASULLO, P. 1998. On verbal quantification in Spanish. *Studies on the syntax of central Romance languages*, eds. O. Fullana & F. Roca, 9–63. Girona: Servei de Publicacions, Universitat de Girona.

- BOSQUE, I. & GUTIÉRREZ-REXACH, J. 2009. *Fundamentos de sintaxis formal*. Madrid: Akal.
- BOSQUE, I. & GALLEGÓ, Á. 2014. Reconsidering subextraction: Evidence from Spanish. *Borealis* 3.2:223–258.
- CASTROVIEJO, E. 2006. *Wh-exclamatives in Catalan*. Universitat de Barcelona. PhD diss.
- CHOMSKY, N. 1977. On wh-movement. *Formal semantics*, eds. P. Culicover, Th. Wasow & A. Amajian, 71–132. London: Academic Press.
- CHOMSKY, N. 1993. A minimalist program for linguistic theory. *The view from building 20*, eds. K. Hale & S. J. Keyser, 1–52. Cambridge, MA: The MIT Press.
- CHOMSKY, N. 1995. *The Minimalist Program*. Cambridge, MA: The MIT Press.
- CHOMSKY, N. 2010. Some simple evo-devo thesis: How true might they be for language. *The evolution of human language: Biolinguistic perspectives*, eds. R. K. Larson et al., 45–62. Cambridge: Cambridge University Press.
- CORDE (Corpus de Referencia del Español). <http://www.rae.es>.
- CORVER, N. 1997a. Much-support as a last resort. *Linguistic Inquiry* 28.1:119–164.
- CORVER, N. 1997b. The internal structure of the Dutch extended adjectival projection. *Natural Language and Linguistic Theory* 15:289–368.
- CREA (Corpus de Referencia del Español Actual). <http://www.rae.es>.
- EGUREN, L. & PASTOR, A. 2020. Pied-piping in degree wh-clauses in Spanish. *Current Theoretical and Applied Perspectives on Hispanic and Lusophone Linguistics. Selected papers from the 2017 Hispanic Linguistic Symposium*, eds. D. Pascual & I. Elola, 109–131. Amsterdam: John Benjamins.

- FÁBREGAS, A. 2014. Phrasal Spell Out: An argument from haplology. *Linguistic Analysis* 39.1/2:83–125.
- FOX, D. 1999. Reconstruction, binding theory, and the interpretation of chains. *Linguistic Inquiry* 30:157–196.
- FOX, D. 2003. On Logical Form. *Minimalist syntax*, ed. R. Hendrick, 82–123. Oxford: Blackwell.
- GÉRARD, J. 1980. *L'exclamation en français. La syntaxe des phrases et des expressions exclamatives*. Tübingen: Max Niemeyer Verlag.
- GRIMSHAW, J. 1991. Extended projection. Ms., Brandeis University.
- GUTIÉRREZ-REXACH, J. 1999. The structure and interpretation of Spanish degree neuter constructions. *Lingua* 109.1:35–63.
- GUTIÉRREZ-REXACH, J. & Andueza, P. 2011. Degree restrictions in Spanish exclamatives. *Selected Proceedings of the 13th HLS*, ed. L. A. Ortiz-López, 286–295. Somerville, MA: Cascadilla Proceedings Project.
- HALLE, M. & MARANTZ, A. 1993. Distributed Morphology and the pieces of inflection. *The view from building 20*, eds. K. Hale & S. J. Keyser, 111–176. Cambridge, MA: The MIT Press.
- HAMBLIN, C. L. 1973. Questions in Montague English. *Foundations of Language* 10:41–53.
- JOHNSON, K. 2009. Why movement? Talk presented at the Chicago Linguistics Society Meeting.
- JOHNSON, K. 2016. Late Merge and Pied Piping. Ling 810 class notes, 3 March 2016, University of Massachusetts at Amherst.

- KARTTUNEN, L. 1977. Syntax and semantics of questions. *Linguistics and Philosophy* 1:3–44.
- KAYNE, R. 2002. On some prepositions that look DP-internal: English *of* and French *de*. *Catalan Journal of Linguistics* 1:71–115.
- KAYNE, R. 2005. Some notes on comparative syntax, with special reference to English and French. *The Oxford handbook of comparative syntax*, eds. G. Cinque & R. Kayne, 3–69. Oxford: Oxford University Press.
- KENNEDY, Ch. 1997. *Projecting the adjective: The syntax and semantics of gradability and comparison*. University of Santa Cruz. PhD diss. Published in 1999 by Garland, New York.
- LÓPEZ PALMA, H. 1999. *La interpretación de los cuantificadores. Aspectos sintácticos y semánticos*. Madrid: Visor Libros.
- MARTÍ I GIRBAU, N. 2010. *The syntax of partitives*. Universitat Autònoma de Barcelona. PhD diss.
- MASULLO, P. 2003. Hidden exclamatives in Spanish. Ms., University of Pittsburg.
- MATTHEWSON, L. 2001. Quantification and the nature of crosslinguistic variation. *Natural Language Semantics* 9:145–189.
- MORÓN PASTOR, A. 2004. *La frase de grado compleja con adjetivos*. Universidad Autónoma de Madrid. PhD diss.
- NOYER, R. 1997. *Features, positions and affixes in autonomous morphological structure*. New York: Garland Publishing.
- NUNES, J. 2011. The Copy Theory. *The Oxford handbook of Linguistic Minimalism*, ed. C. Boeckx, 143–172. Oxford: Oxford University Press.

- OCTAVIO DE TOLEDO, A. S. & SÁNCHEZ LÓPEZ, C. 2007. Variación sintáctica y espacio dialectal: a propósito de los cuantificadores interrogativos y exclamativos. *El español de América. Actas del VI Congreso Internacional de “El español de América”*, eds. C. Hernández Alonso & L. Castañeda San Cirilo, 839–856. Valladolid: Diputación de Valladolid.
- OCTAVIO DE TOLEDO, A. S. & SÁNCHEZ LÓPEZ, C. 2009. Cuantificadores II. Los cuantificadores interrogativos y exclamativos. *Sintaxis histórica de la lengua española. Segunda Parte: La frase nominal*, ed. C. Company Company, 963–1072. México: Fondo de Cultura Económica.
- PASTOR, A. 2008. Split analysis of gradable adjectives in Spanish. *Probus* 20:257–299.
- RAE-ASALE. 2009. *Nueva gramática de la lengua española*. Madrid: Espasa.
- RETT, J. 2008. A degree account of exclamatives. *SALT XVIII*, eds. T. Friedman & S. Ito, 601–618. Ithaca, NY: Cornell University.
- RETT, J. 2011. Exclamatives, degrees and speech acts. *Linguistics and Philosophy* 34:411–442.
- SÁEZ, L. 2017. Más-support. *Advances in the analysis of Spanish exclamatives*, ed. I. Bosque, 53–81. Ohio: The Ohio State University Press.
- SÁNCHEZ LÓPEZ, C. 2006. *El grado de adjetivos y adverbios*. Madrid: Arco/Libros.
- SÁNCHEZ LÓPEZ, C & Octavio de Toledo, A. S. 2010. À propos de la distribution et l’évolution des schémas de quantification interrogative et exclamative dans les langues romanes. *Actes de XXV^e Congrès International de Linguistique et de Philologie Romanes*, eds. M. Iliescu, H. Siller-Runggaldier & P. Danler, 507–522. Berlin/New York: De Gruyter.

VANGSNES, Ø. A. 2008. Decomposing manner *how* in colloquial Scandinavian. *Studia Linguistica* 62.1:119–141.

ZANUTTINI, R. & PORTNER, P. 2003. Exclamative clauses: At the syntax-semantics interface. *Language* 79.1:39–81.

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