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There is only one *más*: Spanish *que*/*de* comparative alternation

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Abstract

Spanish has two forms of expressing comparatives: the standard can be introduced by *que* 'that' or *de* 'of'. Previous analyses such as Mendia (2020) have attributed this dichotomy to the comparative morpheme *más* 'more': $más_{que}$ is a generzalized quantifier over degrees (Heim 2001), while $más_{de}$ is a three-place predicate à la Kennedy (1997b). Based on data from extraposition of free relatives, ACD resolution and the syntax of comparative numerals, I propose a unified account which assumes a single lexical entry for *más*, as argued for other languages by Lechner (2004, 2021), Pancheva (2006, 2010), Bale (2008), Alrenga et al. (2012), and Wellwood (2015, 2019): *más* is generalized quantifier over degrees. The analysis ensures that *más* and the standard form a constituent, resolves ACD sites inside the standard of comparison and allows for extraposition.

Keywords: Degrees; comparatives; comparative numerals; Measure Phrases; ACD; extraposition; Spanish

1 Introduction

There is a great amount of variation in the expression of comparative constructions cross-linguistically. Even in languages that use a *more*/*-er* degree expression to introduce comparison, there is variation in the standard. For instance, since the work of Hankamer (1973) there has been a debate regarding the status of *than*-complements in English. However, as argued by Lechner (2001) and Bhatt and Takahashi (2011), English only allows for clausal comparatives as shown by binding facts.

Other languages like Greek, as shown by Merchant (2009, 2012), have a morpheme *apo* 'from' that introduces both clausal and phrasal comparatives. When it introduces a clause, the *wh*-element *ti* encliticizes to *apo* as in (1a), whereas when it introduces a DP, there is no *wh*-element and the constituent inside the standard bears accusative case (1b). Despite the surface differences, Merchant (2012) shows that a reduced clausal analysis is possible for *apo*, and in fact argues for it.[1]

1. Greek also has a third type of comparative strategy that does not use *apo* as the standard morpheme. The standard is marked with genitive case. See Merchant (2012).

(1) *Greek* (Merchant 2009, 135-136: ex. 4 & 9a)

a. I Maria pezi kiθara kalitera apo-ti pezi kiθara o Giannis
the Maria.NOM plays guitar better than-WH plays guitar the Giannis.NOM
'Maria plays the guitar better than Giannis plays the guitar'

b. I Maria pezi kiθara kalitera apo ton Gianni
the Maria.NOM plays guitar better than the Gianni.ACC
'Maria plays the guitar better than Giannis'

Though Spanish is similar to Greek in that there is a clear difference inside the standard of comparison, unlike Greek the standard morpheme in Spanish is morpho-syntactically distinct. As illustrated in (2), there are two possible ways to express comparison of superiority (*más* 'more') or inferiority (*menos* 'less'): with the complementizer *que* 'that', or with the preposition *de* 'of'. Throughout the paper, I will use *más* for consistency.

(2) a. Góngora escribió { más/ menos} poemas **que** Cervantes
Góngora wrote more less poems that Cervantes
'Góngora wrote {more/ less} poems than Cervantes'

b. Góngora escribió { más/ menos} poemas **de** dos
Góngora wrote more less poems of two
'Góngora wrote {more/ less} poems than two'

What the precise status of *que* and *de* is and whether or not they differ semantically and syntactically is a topic of debate. Most of the literature in Spanish is primarily descriptive and does not provide a formal explanation of this difference. These works have focused on describing what the distribution of these two morphemes is, on the one hand, and on the intuitive semantic differences that *de* comparatives convey with respect to their *que* counterparts. From a syntactic point of view, there is disagreement as to whether *de* takes full clauses (Price 1990), or DPs as complements (Brucart 2003). A similar controversy revolves around the syntactic status of *que*, which has been analyzed as taking both phrasal and clausal complements (Vela-Plo 2017; Mendia 2020).

A recent proposal made by Mendia (2020), which I label here as *the Two "más" Hypothesis*, argues that the *que/de* distinction follows (i) if in the syntax *que* takes a TP-like complement, while *de* takes a DP-like complement; and (ii) in the semantics, the complement of *que* denotes a set of degrees of type $\langle d, t\rangle$ while the complement of *de* denotes a degree of type d. In order to capture this semantic difference, Mendia proposes that there are two separate lexical entries for the degree quantifier: one that denotes a generalized quantifier over degrees (Heim 2001, Bhatt and Pancheva 2004) that will take the *que* standard as its first argument and then undergo Quantifier Raising (QR); and a three place predicate that takes a gradable predicate, the *de*-standard of type d, and an individual. In this case *más* does not QR, and is interpreted in its base position (Kennedy 1997b, 1999).

However, the *Two "más" Hypothesis* faces serious empirical challenges with respect to extraposition, ellipsis resolution and constituency. Besides, there is a conceptual disadvantage: there is no morpho-syntactic evidence that supports the hypothesis that *más* is

lexically ambugious. This is not an accident of Spanish, but a robust cross-linguistic fact: there is no language that we know of that uses different degree markers like *-er* or *más* to make a distinction between the two types of comparatives; the morpho-syntactic distinction is always found on the standard (Pancheva 2006; Bale 2008; Bhatt and Takahashi 2011; Bobaljik 2012, among others).

The goal of this paper is to demonstrate that a uniform analysis of comparatives in Spanish is not only possible if we assume that *más* is a generalized quantifier (Heim 2001), but also empirically stronger and conceptually desirable. Though I follow Mendia's (2020) analysis of clausal *que* comparatives as involving a quantifier *más* and a *que*-clause of type $\langle d, t\rangle$, some of the background details will be different. For example, I adopt Bhatt and Pancheva's (2004) analysis according to which the standard of comparison is late-merged, which is necessary for the non-conservativity of natural language quantifiers as well as for issues dealing with trace conversion and the interpretation of traces at LF (Fox 2001, 2002; Pasternak 2020). I also diverge from Mendia's analysis and generalization of *de*-comparatives: *de* comparatives are not genuinely phrasal, they only introduce Measure Phrases (MPs). Thus, their incompatibility with individual denoting DPs. Like Mendia (2020), I assume that the semantic type of these MPs is just a degree, e.g. d, (cf. Rett 2014).

I argue that a single lexical entry for *más* follows if *de* is not semantically vacuous but rather *de* takes an MP of type d as its argument and returns an element of the appropriate type $\langle d, t\rangle$ to combine with the comparative morpheme (Pancheva 2006).

The paper is organized as follows. In §2 I present the basic data regarding comparative sentences in Spanish. In §3 I summarize Mendia's (2020) proposal, and I also outline the challenges it faces: extraposition, inverse scope, ellipsis resolution and constituency. §4 provides a summary of the points covered. After that, I propose my alternative theory and analysis in §5. In §6, I address the locality and height of QR, and the interactions with Scope Economy. In §7, I discuss the *apparent* challenge of subset comparatives which have been considered phrasal despite being introduced with *que* (Grant 2010, 2013; Aparicio 2014; Mendia 2020). I address the Spanish data and some cross-linguistic data in §8. Finally, §9 concludes the paper.

2 Syntactic and semantic requirements of clausal and phrasal comparatives

As outlined in the introduction, there is good evidence to believe that the syntactic and semantic status of *que* and *de* comparatives is different. In this section, I will present data that supports this distinct linguistic behavior. First, data concerned with their syntax are provided. Then, data that focus on the semantics are given. These arguments come from Mendia (2020).

2.1 TP-like vs. MP-like complements

The example in (2), repeated in (3) for convenience, shows that just by looking at the morphemes introducing the standard there is a difference in terms of the syntactic category each of them belong to: *que* is a complementizer and *de* is a preposition. Thus, it would not be unreasonable to conclude that *que* takes full clauses, e.g. TP, and projects a CP while *de* takes a nominal, and projects a PP.

(3) a. Góngora escribió más poemas **que** Cervantes
Góngora wrote more poems that Cervantes
'Góngora wrote more poems than Cervantes'

b. Góngora escribió más poemas **de** dos
Góngora wrote more poems of two
'Góngora wrote more poems than two'

In fact, we can test these intuitions by applying three different diagnostics: the size of the standard, the (im)possibility of ellipsis within the standard, and the (im)possibility to combine with free relatives.

A reliable method to determine whether we are dealing with a phrasal or a reduced clausal comparative is to look at the (syntactic) size of the standard. If there are multiple remnants available inside the standard, the standard is a clause that has undergone ellipsis (Bhatt and Takahashi 2011). While multiple remnants are possible with *que* as illustrated in (4a), they are unacceptable with *de* as shown in (4b):

(4) a. Esta semana ella compró más muebles **que** él la semana pasada
this week she bought more furnitrue that he the week past
'She bought more pieces of furniture this week than he did last week'

b. * Esta semana ella compró más mubeles **de** dos la semana pasada
this week she bought more furnitrue of two the week past
Int.:'She bought more pieces of furniture this week than two last week'

In (4a), there are two remnants: the DP *él* 'he', and the adverbial DP *la semana pasada* 'last week'. In addition to this, the example in (4a) shows case connectivity: the DP *él* in the standard matches the case of the comparee in the matrix clause — the DP *ella* 'she'. The fact that the NOM-marked DPs pattern with clauses with respect to case assignment is good evidence for a clausal source. On the contrary, in (4b) having a numeral *2* is not compatible with a second remnant *la semana pasada*.

Besides, clausal complements should be able to undergo TP ellipsis with the option of having multiple remnants fronted to the left periphery (Brucart 2003; Reglero 2006; Saab 2007) (5). This contrasts with nominals, including free relatives (Izvorski 1996; Caponigro 2004; Gutiérrez-Rexach 2014), where the ellipsis options are more limited (6):

(5) a. Andrea dio más besos a Valen que Carmen dio a Luis
Andrea gave more kisses to Valen that Carmen gave to Luis
'Andrea kissed Valen more times than Carmen kissed Luis'

b. Andrea dio más besos a Valen que Carmen ~~dio~~ a Luis

c. Andrea dio más besos a Valen que Carmen ~~dio~~ a ~~Luis~~

(6) * Andrea dio más besos a Valen de lo que Carmen ~~dice~~
Andrea gave more kisses to Valen of the.NEUT that Carmen says
'Andrea kissed Valen more times than what Carmen ~~says~~

The example in (5b) is a case of TP ellipsis in which the subject *Carmen* and the indirect object *a Luis* 'to Luis' have survived deletion. In (5c) only the subject is a remnant. However, ellipsis of the same clausal material, i.e. a TP, inside the free relative in (6) results in unacceptability. This follows from the hypothesis that clausal ellipsis within the standard should be permitted under identity if the standard is in fact a clause.[2]

The example in (6) is consistent with a DP analysis of free relatives. In fact, unlike *de*-comparatives, *que*-comparatives cannot introduce a free relative; they may introduce a headless relative clause instead (7):

(7) Andrea dio más besos a Valen que { *lo que dice Carmen / los
Andrea gave more kisses to Valen that the.NEUT that says Carmen the.M.PL
~~besos~~ que dice Carmen }
kisses that says Carmen
'Andrea kissed Valen more times than {*what Carmen says/ the number of kisses Carmen says she did}'

That said, as Mendia (2020) showed, we can conclude that there is a syntactic requirement in Spanish comparatives: *que* introduces a clausal complement while *de* takes a DP-like complement. However, not every DP is compatible with *de*. Only those that denote or indicate a measurement: phrases containing numerals (2b), pro-forms making reference to degrees, and free relatives which are definite degree descriptions (Izvorski 1996; Caponigro 2004; Gutiérrez-Rexach 2014). Thus, the generalizations that emerge are as in (8):

(8) Syntactic Requirement on comparative standards:

a. *que* requires a clausal complement, i.e. TP. (Mendia 2020)

b. *de* requires an MP complement.

2.2 The semantics of the standards

A closer look at the semantics of standards reveals that what is being compared is also distinct. Although they both make reference to degrees, *que* compares "individuals" while *de* compares "degrees" or "measurable amounts". One way to test for this difference, as proposed by Mendia (2020), is to use the demonstrative pronoun *eso* "that", which can either

2. Spanish has TP ellipsis (similar to English sluicing Ross 1967; Merchant 1999; Depiante 2000; Saab 2007) in which the remnant must undergo movement to a specifier in the left periphery. In free relatives like (6), TP deletion is not acceptable (cf. Saab 2010).

refer to an individual or a degree. The subscript *d* will be used to indicate the demonstrative is denoting a degree; the subscript *e* will be used to indicate it is denoting an individual. A pair of examples with supporting context is in (9) and (10):[3]

(9) *[The shirt is 12 years old]*

A: La camisa tiene 10 años
the shirt has 10 years
'The shirt is 10 years old'

B: No, la camisa es más vieja { de / *que} eso_d
no the shirt is more old of that $that_d$.DEM
'No, the shirt is older than [$that_d$ = 10 years]'

(10) *[I have an old tee and an older shirt. Pointing at the tee.]*

La camisa es más vieja { *de / que} eso_e
the shirt is more old of that $that_e$.DEM
'The shirt is older than [$that_e$ = tee]'

(9) is comparing "degrees" (i.e. the age of the shirt is a measurable quantity); (10) is comparing "individuals" (i.e. the shirt and the tee). In addition to this, although we already saw in the previous section that free relatives cannot be the complement of *que* because they are MP-like elements, this restriction becomes even more apparent when the head of the free relative clause is a quantity denoting *wh*-element: *cuanto* 'how much'. This follows if free relatives are definite degree expressions (Gutiérrez-Rexach 2014).

(11) La camisa tiene más años { de / *que} cuantos pensábamos
the shirt has more years of that how.many thought.1PL
'The shirt is older than what we thought'

Based on these data, I follow Mendia (2020) and assume that, in addition to the syntactic constraint, there is a semantic requirement:

(12) Semantic requirement on comparatives:
a. *que* takes an argument of type $\langle d, t \rangle$;
b. *de* takes an MP of type *d*.

The question that (12) raises is whether a uniform analysis of the two types of comparatives is possible considering that the standards of comparison they introduce have different semantic types. One available answer is the one provided by the *Two "más" Hypothesis* (Mendia 2020) that argues that such uniformity is not possible. Nevertheless, as I argue below, there are some problems with this analysis which should make us reconsider the question.

3. I am grateful to a reviewer for suggesting the context in (9).

Contrary to the *Two "más" Hypothesis*, I propose that uniformity is actually a possible, desired and more parsimonious alternative; and it can be achieved by making the following two claims:

(13) a. The comparative morpheme *más* takes two arguments of type $\langle d, t \rangle$.
b. The preposition *de* is not semantically vacuous.

(13a) provides a uniform treatment of all comparatives and has been argued for by Heim (2001), Bhatt and Pancheva (2004), Pancheva (2006, 2010), and Lechner (2004, 2021) among others; and (13b) enables it and is reasonable because expressions should not be semantically vacuous as Pancheva (2006, 2010) has shown. This aligns with the cross-linguistic observations made by Pancheva (2006), Bale (2008), and Alrenga et al. (2012) that the semantics of comparison is not only encoded by the degree quantifier, but also by the standard morpheme. In fact, as they argue, in those languages that mark the phrasal vs. clausal distinction, the difference lies in the standard morpheme and not in the comparative morpheme.[4]

But before getting into the proposal, I will first concentrate on Mendia's (2020) *Two "más" Hypothesis*. I will summarize this analysis and then outline where it faces some empirical challenges.

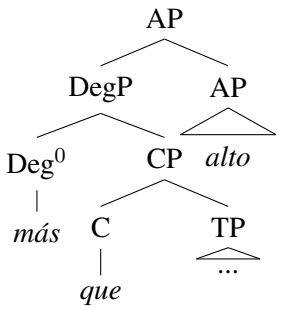
3 Mendia's (2020) *Two "más" Hypothesis*

Mendia proposes what I have been referring to in this paper as the *Two "más" Hypothesis*. He makes use of a degree-semantic analysis that places the distinction between phrasal and clausal comparatives not in the standard morphemes but in the comparative marker *más*. This analysis follows the proposal put forward for English by Kennedy (2007) who argues for a dual distinction.

On the one hand, clausal *más* is a generalized quantifier over degrees that in the syntax takes the *que* standard as its complement. This treatment of *más* follows the 'classical analysis' of comparatives (Bresnan 1973; Heim 2001; Bhatt and Pancheva 2004 a.o.). The tree structure for the comparative and the denotation for *más* are given in (14) and (15) respectively:

4. Bobaljik (2012, 68: fn. 24) arrives at the same conclusion based on his robust cross-linguistic survey. Similarly, a unifying semantics for comparative morphemes like *more/-er* has been advocated by Wellwood (2015, 2019). Though Wellwood makes use of a lower typed *-er*, her arguments also go through with the higher typed *-er* that I am assuming here. See Wellwood (2019) for details.

(14)



(15) $[\![\text{más}_{\text{CL}}]\!] = \lambda P_{\langle dt \rangle}.\lambda Q_{\langle dt \rangle}.[\text{MAX(Q)} > \text{MAX(P)}]$

Clausal *más* is the head of its own projection: a DegP which is merged in the specifier position of the AP. Semantically, *más* is a generalized quantifier over degrees of type $\langle\langle dt\rangle, \langle dt, t\rangle\rangle$ that takes two arguments. The first argument is the clausal standard which is of type $\langle dt\rangle$. This is because there is movement of the covert comparative operator inside the standard (Bresnan 1973, Chomsky 1977, Heim 2001). Such a movement creates a λ-abstract (in the spirit of Heim and Kratzer 1998) that binds a degree variable in the operator's base position at LF.

Regarding the second argument, given that the DegP is generated in a position that is a sister to a gradable predicate of type $\langle d, \langle e, t\rangle\rangle$, there is no way compositionally that the second argument of *más* is of the required type. Therefore, this is solved by assuming that there is QR to a node of type *t* creating a λ-abstract that binds the degree variable left by the quantifier. In other words, in both the standard clause and the matrix clause there is degree abstraction.

The motivation for the QR analysis of clausal *más* is based on extraposition into the clause of the standard of comparison (16b) and the availability of scopal interactions between the degree quantifier and intensional operators. (17) shows scope interactions between *menos* 'less' and *tener que* 'have to', and (18) shows scope interactions between *exactamente 3 más* 'exactly 3 more' and the same modal.[5]

(16) *que-Extraposition into the clause*

a. Un samsung está más barato [que un iPhone] en MediaMarkt ahora
a samsung is more cheap that an iPhone in MediaMarkt now
'A samsung is cheaper than an iPhone in MediaMarkt now'

b. Un samsung está más barato en MediaMarkt ahora [que un iPhone]
a samsung is more cheaper in MediaMarkt now that an iPhone

(17) *Scope:* MODAL & MENOS

5. In order to show scopal ambiguities *menos* or an exactly differential has to be used. As shown by Heim (2001), using the bare superiority comparative morpheme leads to confounds and truth conditional equivalences between the surface and inverse scope readings. See Heim (2001) and Bhatt and Pancheva (2004) for further details.

Pedro tiene que saltar menos alto que Juan
Pedro has that to-jump less high that Juan
'Pedro has to jump less high than Juan'

a. MODAL > MENOS: 'The requirement is that Pedro must jump less high than Juan

b. MENOS > MODAL: 'The minimal height required for Pedros jump is lower than Juans jump (no upper bound limit)

(18) *Scope*: MODAL & EXACTAMENTE 3 MÁS

[Juan read 2 books]

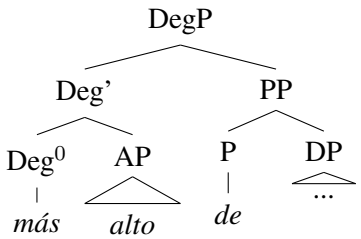
Pedro tiene que leer exactamente 3 libros más que Juan
Pedro has that to.read exactly 3 books more that Juan
'Pedro has to read exactly 3 books more than Juan'

a. MODAL > EXACTAMENTE 3 MÁS: 'The requirement is that Pedro must read exactly 5 books (no more nor less)'

b. EXACTAMENTE 3 MÁS > MODAL: 'The minimum number of books that Pedro must read is 5 (but he can read more)'

On the other hand, Mendia (2020) assigns a different syntactic structure and semantics to phrasal comparatives: instead of being part of the Adjective's extended projection, *más* projects its own DegP and takes the AP as its complement (Abney 1987; Larson 1988; Corver 1990, 1997; Kennedy 1997b, 1999 a.o.); semantically, the degree morpheme is not a quantifier, but a three-place predicate. The syntactic structure and lexical entry for phrasal *más* are given in (19) and (20) respectively:

(19)



(20) $[\![\text{más}_{\text{PHR}}]\!] = \lambda R_{\langle d,\langle e,t\rangle\rangle}.\lambda d.\lambda x.\text{MAX}(\lambda d'.R(d')(x)) > d$

Under this Deg-headed approach, *más* takes a AP as its first semantic argument, and then it takes the standard of type d as its second argument.[6] This semantics for *más* does not require QR. Instead, the degree morpheme is interpreted in its based position.

This treatment of *más* as a three-place predicate that need not QR makes several important predictions: (i) clausal extraposition should not be expected; and, (ii) *más/menos*

6. Though the PP is an argument in the semantics, in the syntax the standard is a right adjoined adjunct. Instead of composing via Predicate Modification (Heim and Kratzer 1998) as adjuncts do, *más* has to compose with the syntactic adjunct in the semantics via Function Application.

should not be able to scope over intensional predicates. Mendia (2020) shows that (i) is borne out based on data like (21):

(21) *No extraposition into the clause: numeral and pronominal MP*

* Un samsung está más barato en Amazon ahora [de { 100 dólares/ eso$_d$}]
a samsung is more cheap in Amazon now of 100 dollars that$_d$
'A samsung is cheaper in Amazon now than {$100/ that$_d$}'

(21) shows that extraposition into the clause of the *de*-standard is disallowed when *de* introduces a numeral or a pronominal MP. These examples demonstrate that extraposition into the clause of *de*-standards is disallowed, and gives rise to the generalization in (22):[7]

(22) **The *de*-Extraposition Generalization (DEG)** (initial version)
de-standards cannot appear extraposed at the clausal level.

In addition, Mendia (2020, 603 & 614) shows that prediction (ii) is also borne out. This is illustrated in (23) with a pronominal MP and in (24) with a free relative. The data and the judgments are Mendia's:

(23) *[Juan jumped 2' and Pedro must jump at least 1.8']*

Pedro debe saltar menos alto de eso [eso = 2']
Pedro must.PRES.3SG to.jump less high of that$_d$ that$_d$ = 2'
'Pedro must jump less high than that'

a. ✓ MODAL > MENOS: 'the requirement is that Pedro jumps less high than Juan'
b. # MENOS > MODAL: 'The minimal height required of Pedro's jump is below Juan's jump' (603: ex. 52)

(24) Pedro tiene que saltar menos alto de lo que saltó Juan
Pedro has that to.jump less high of the.NEUT that jumped.3SG Juan
'Pedro has to jump less high than what Juan did'

a. ✓ MODAL > MENOS
b. # MENOS > MODAL (*adapted from* 614: ex. 84)

The reported judgment is that the inverse scope interpretation in (23b) and (24b) is unavailable regardless of what the complement of *de* is. In the next subsections, however, I show that the situation with respect to extraposition and scope is more complex than what was originally reported in Mendia (2020). In fact, I note that clausal extraposition of a subset of *de*-standards is possible. This same subset of *de*-standards also allow the inverse scope interpretation, though there is a substantial amount of variation that we should take into account. In addition to these, I mention other significant challenges that the *Two "más" hypothesis* has to face.

7. Whether this generalization applies to other languages that have phrasal comparatives or is particular to Spanish is unknown to me. Probing this is beyond the scope of this paper, and I would like to leave this question for future research.

3.1 Challenge #I: extraposition into the clause (free relatives)

While it is true that the ungrammaticality of (21) is indisputable, Mendia (2020) does not consider the full paradigm of *de*-standards. Some MPs can appear in the standard which allow clausal extraposition. These include free relatives (26a) and reduced free relatives (26b-26c).[8] By reduced free relatives I refer to quantity denoting MPs introduced by the definite article like those illustrated in (25):

(25) *Reduced free relatives*

a. lo normal → lo que es normal
the.NEUT normal the.NEUT that is normal
'{How much/ what(ever)} is normal'

b. lo previsto → lo que está previsto
the.NEUT forseen the.NEUT that is forseen
'{How much/ what(ever)} is forseen'

(26) *Extraposition into the clause: full & reduced free relatives*

Un samsung está más barato ...
a samsung is more cheap
'a samsung is cheaper'

a. ... en Amazon ahora [de lo que debería]
in Amazon now of the.NEUT that should.COND.3SG
'... in Amazon now than what it should be'

b. % ... en Amazon ahora [de lo normal]
in Amazon now of the.NEUT normal
'in Amazon now than what's normal'

c. % ... en Amazon ahora [de la cuenta]
in Amazon now of the.F.SG count
'... in Amazon now than what's its usual price'

These examples demonstrate that clausal extraposition with a subset of *de* standards is allowed, contrary to what the generalization in (22) predicts. In fact, the data point to a reformulation of generalization in (22) regarding *de*-standards. The final version is in (27):

(27) **The *de*-Extraposition Generalization (DEG)** (Final version)
de-MP standards containing a numeral or a pro-form cannot appear extraposed at the clausal level.

8. A reviewer reports that extraposition of reduced free relatives as in (26b-26c) is degraded for them and some speakers that they consulted, especially if compared to the baseline without extraposition. Thus, the % mark. However, they acknowledge that extraposed reduced free relatives are less degraded than the ungrammatical counterparts in (21). Though the question about the variable acceptability of examples with extraposed reduced free relatives is an issue for further scrutiny, I provide some arguments in §5.3 that can explain this variation.

The generalization rules out extraposition into the clause of (21), but stays silent about free relative extraposition in (26). What is crucial is that the generalization does not rule (26) out.

A reviewer asks whether the difficulty of extraposition in *de* comparatives is PP-dependent: "heavier" PPs (e.g. free relatives) are easier to extrapose than "light" ones (e.g. numeral and pronominal MPs). While I agree with the reviewer that extraposition of "heavier" constituents is easier and has been observed in the literature since at least Ross (1967), Ross and Perlmutter (1970), and Baltin (1978, 1987), there is good reason to believe that extraposition of *de*-standards is not driven (or at least not only) by the heaviness of the PP. In Spanish, extarposition of the *de*-standard is fairly restricted when it comes to MPs like *100 dólares* '100 dollars', which Mendia (2020) already observed. However, MPs like *100 dólares* introduced by *de* can undergo subextraction and extraposition in non-comparative contexts, despite the fact that they are not very heavy. This is shown in (28a) and (28b) for subextraction and extrapostion respectively:

(28) Compró [$_{DP}$ un teléfono [$_{PP}$ de 100 dólares]] en Amazon el mes pasado
bought a phone of 100 dollars in Amazon the month past
'S/He bought a 100 dollar phone in Amazon last month'

a. [$_{PP}$ de 100 dólares]$_1$, compró [$_{DP}$ un teléfono t_1] en Amazon el mes pasado
of 100 dollars bought a phone in Amazon the month past
'A 100 dollar phone, s/he bought in Amazon last month'

b. compró [$_{DP}$ un teléfono t_1] en Amazon el mes pasado [$_{PP}$ de 100 dólares]$_1$
bought a phone in Amazon the month past of 100 dollars
Lit.: 'S/He bought in Amazon last month a 100 dollar phone'

In both (28a) and (28b) the PP selecting the MP has been extracted out of the containing DP and moved to a structurally higher position. However, the same operations are disallowed if *de* introduces the standard of comparison, e.g. (21).

3.2 Challenge #II: inverse scope with *de*-standards

It was reported based on data like (23-24) that inverse scope between the degree morpheme and a modal was not possible. However, I want to report the following: although the inverse scope is unavailable for every consulted speaker when *de* introduces a numeral or a pronominal MP, the judgments are murkier with free relatives than what is originally reported by Mendia (2020). In fact, inverse scope is possible for some speakers.[9]

The sentence in (24), adapted from Mendia (2020, 614: ex. 84) is repeated in (29). I provide a context that makes the inverse scope reading available. Since the MODAL > MENOS reading is not problematic we can disregard it for the moment:

9. I have consulted 10 native speakers of Peninsular Spanish from Valladolid (x3), Salamanca (x2), Asturias (x3) and Madrid (x2). Seven of them accepted the inverse scope reading with both *menos* "less" and *exactly* MP differentials. The other three did not accept the inverse scope with either *de* or *que* comparatives, and disliked inverse scope more generally with other quantifiers.

(29) *[Pedro and Juan are competing in the Olympics. Juan has just made his last jump (2.5m) and is now only 1 point ahead of Pedro. Pedro's turn is next. As long as he jumps (and does not drop out last minute) even the smallest jump will make him the winner. The minimal height required for Pedro's jump to win doesn't have to be as high as Juan's jump.]*

Pedro tiene que saltar menos alto de lo que saltó Juan
Pedro has that to.jump less high of the.NEUT that jumped.3SG Juan
'Pedro has to jump less high than what Juan did'

a. MENOS > MODAL: 'The minimal height required for Pedro's jump is lower than Juan's jump'

In this scenario, (29) is true under the inverse scope reading but false under the surface scope reading in which the modal scopes over the degree operator. Similar facts obtain with *exactly* MP differentials. This is shown in (30):

(30) Juan has read two books

Pedro tiene que leer exactamente 3 libros más de cuantos ha leído Juan
Pedro has that to.read exactly 3 books more of how.many has read Juan
'Pedro has to read exactly 3 books more than however many Juan has read'

a. ✓ MODAL > EXACTAMENTE 3 MÁS: 'The requirement is that Pedro reads exactly 5 books'

b. ✓ EXACTAMENTE 3 MÁS > MODAL : 'The minimal number of books that Pedro is required to read is 5 (but there is no upper bound limit)'

The example in (30) provides further evidence that QR has to occur at the clausal level when *de* introduces a full free relative.

Regarding reduced free relatives such as (25), there is speaker variation as observed for extraposition into the clause. In fact, I show in the next section that this variation in the acceptability of inverse scope correlates with the size of the ellipsis antecedent. The relevant data is in (31). We can make use of the same context for (31) as in (29): *lo saltado por Juan* "the.NEUT jumped height by Juan" = 2.5m.[10]

(31) Pedro tiene que saltar menos alto de lo saltado por Juan
Pedro has that to.jump less high of the.NEUT jumped.PST.PART by Juan
'Pedro has to jump less high than the height jumped by Juan'

a. % MENOS > MODAL: 'The minimal height required for Pedro's jump is lower than Juan's jump'

(32) Ling-210 students normally read 2 papers. Pedro is a Ling-210 student this semester.

10. 6/10 native speakers of Peninsular Spanish accept the inverse scope, whereas 4/10 only accept the surface scope. As I note in the next subsection, the same 6 speakers accept a larger ellipsis site, i.e. TP; the other 4 speakers accept a lower ellipsis site, i.e. *v*P.

Este semestre, Pedro tiene que leer exactamente 3 artículos más de lo
this semester Pedro has that to.read exactly 3 papers more of the.NEUT
normal para Ling-210
normal for Ling-210
'This semester Pedro has to read exactly 3 papers more than however many it is normal to read for Ling-210'

a. ✓ MODAL > EXACTAMENTE 3 MÁS: 'The requirement is that Pedro reads exactly 5 papers'
b. % EXACTAMENTE 3 MÁS > MODAL : 'The minimal number of papers that Pedro is required to read is 5 (but there is no upper bound limit)'

These examples contribute to the claim that the degree morpheme in *de*-comparatives can also scope over intensional predicates. In other words, it undermines the *Two "más" Hypothesis* and supports an analysis of a single *más* as a generalized quantifier.

3.3 Challenge #III: Ellipsis and ACD resolution

A third challenge that the *Two "más" Hypothesis* has to face is its incompatibility with the Ellipsis-Scope Generalization (Sag 1976; Williams 1977; Bhatt and Pancheva 2004):

(33) **The Ellipsis-Scope Generalization**
The scope of a DegP containing elided material must contain the antecedent of the ellipsis.

This is typically explained by assuming that there is QR to a position where the ellipsis site c-commands its antecedent. However, if there is no QR because phrasal *más* has to be interpreted in its base position, how would we explain ellipsis resolution in the free relative clause (34)?

(34) a. Pedro conduce más rápido de cuanto debería { ~~conducir~~
Pedro drives more fast of how.much should.COND.3SG to.drive
~~*d*-rápido~~}
d-fast
'Pedro drives faster than what he should'

b. Pedro quiere ser más alto de lo que pensamos { ~~que~~ ~~quiere~~
Pedro wants to-be more tall of the.NEUT that think.PRES.1PL that wants
~~ser~~ ~~*d*-alto~~/ ~~ser~~ ~~*d*-altos~~}
to.be *d*-tall.M.SG to-be *d*-tall.M.PL
'Pedro wants to be taller than what we all believe {he wants /to be}

The examples in (34) are a especial case of ellipsis, namely Antecedent Contained Deletion (ACD) (May 1985; Fox 2002) that involves a modal verb or an intensional predicate (Sáez del Álamo 1990). As it has been argued, QR is a required mechanism to resolve the ellipsis

site and avoid infinite regress (Fox 1999, 2000, 2001, 2002; Hackl et al. 2012). That said, the examples pose a serious problem to the treatment of phrasal *más* given the lexical entry in (20).[11]

In addition to full free relatives, assuming that the underlying structure is as (25), reduced free relatives also contain an ACD site that needs to be resolved. The size of the ACD site might vary across speakers. For example, in (35), some speakers of Peninsular Spanish accept a larger site, whereas others only accept a smaller option:[12]

(35) Juan pidió más libros de lo previsto
Juan ordered more books of the.NEUT forseen
'Juan ordered more books than what was expected'

a. % de lo que estaba previsto [$_{CP}$ que [$_{TP}$ pidiera]]
of the.NEUT that was.IPFV forseen that ordered.3SG.IPFV.SUBJ
'than it was expected that he would order' (*Larger ellipsis*)

b. % de lo que estaba previsto [$_{vP}$ pedir]
of the.NEUT that was.IPFV forseen to.order
'than what was expected to be ordered' (*Smaller ellipsis*)

Regardless of the size of the ellipsis, both options in (35) support the claim that the degree quantifier must QR at least as high as the *v*P which is an independently attested scope position (Fox 1999; Legate 2003). For some speakers, QR to the highest TP node is

11. Sáez del Álamo (1990) considers examples like (34) with an intensional predicate such as *deber* 'should' or *pensar* 'think' to be cases of ACD. Modal verbs like *poder* 'can/could' are raising verbs that behave like *parecer* and English 'seem' when they take an infinitival complement (Sáez del Álamo 1990; Fernández-Salgueiro 2005, 2011). Thus, we can assume that they take a TP complement, which can then be deleted. In fact, as the minimal pair from Sáez del Álamo (1990) shows, these verbs do license ACD in relative clauses (i):

(i) a. He invitado a todos (los) chicos que pude
Have.1SG.PRES invited to all the boys that could.1SG.PERF
'I have invited every boy that I could'

b. * He invitado a esos chicos que pude
Have.1SG.PRES invited to these boys that could.1SG.PERF
'I have invited these boys that I could' (Sáez 1990: 199-200, ex. 15-16)

The contrast is explained based on the presence or absence of a quantifier. In (i.a) the quantifier *todos* 'all' forces QR removing the ellipsis site from the c-command domain of its antecedent. From the created scope position, the ellipsis site in the relative clause can be resolved with the relevant TP without infinite regress. However, when the DP containing the relative clause with the ellipsis site is headed by a demonstrative instead of a quantifier, the DP cannot abandon its base position. As a result, the only possible antecedent to resolve the ellipsis site will always contain it. If we look at the kind of comparatives that I am analyzing here (34), we can apply the same logic. There is a modal or intensional element inside the free relative and a gap. Just like in (i.a) in order to avoid infinite regress inside the gap the quantificational element has to move to a scope position. From this position, an appropriate antecedent will be plugged into the gap.

12. See fn.10.

also available as indicated with (35a), where the external argument "Juan" is reconstructed inside the ACD site and so is tense, and aspect morphology on the verb.

3.4 Challenge #IV: the syntax of comparative numerals

Mendia (2020) assigns *de*-comparatives the syntactic structure in (19) following Kennedy (1997b, 1999). The structure is reproduced in the bracketed schema in (36) where GP stands for "Gradable Predicate":

(36) $[_{\text{DegP}}\ [_{\text{Deg'}}$ más GP$]\ [_{\text{PP}}$ de MP$]]$

However, Arregi (2013) gives convincing arguments using data from Spanish, Greek, Basque, Russian and Hebrew that the underlying syntactic structure of comparative numerals like (37a) is as (37b):[13]

(37) a. Compré más de dos libros
bought.1SG more of two books
'I bought more than two books'

b. $[_{\text{DegP}}\ [_{\text{Deg'}}$ más $[_{\text{PP}}$ de 2 libros$]]$

If it is the case that the standard is a complement of *más* at some point in the derivation as presupposed by Arregi's (2013) analysis, there are two problems that the three-place predicate analysis of *más* has to face. The first semantic argument of *más* is a gradable predicate of type $\langle d, \langle e, t\rangle\rangle$, but there is no such an argument. Thus, the derivation of a sentence like (37a) should crash. The second problem is illustrated by examples like (38):

(38) Compré más libros de dos
bought.1SG more books of two
'I bought more books than two'

Under the assumption that *más* and the standard are a constituent at some point in the derivation, the fact that the standard is not locally adjacent to the comparative morpheme shows that local extraposition must have taken place. We know that this extraposition is not at the clausal level because of the ungrammaticality of examples like (21).

Although these concerns might seem to be theory internal, in §5.1 I provide evidence from Spanish and Bulgarian comparative numerals that supports a structure along the lines of Arregi's (2013). As a result, among other things, we are able to account for cases like (38) where local extraposition targets a DP-internal position.

4 Interim Summary

After presenting Mendia's proposal, I have discussed several challenges that such a proposal faces. The challenging data in §3.1-3.4 support the hypothesis that *más* is unambiguously a generalized quantifier over degrees. If we just concentrate on *de*-comparatives,

13. I am grateful to an anonymous reviewer for suggesting the work of Arregi (2013).

the preliminary generalization that emerges using diagnostic tests for the height of QR is summarized in Table 1 for each construction. The further to the right we move along the table, the longer the QR.

Table 1: The height of QR with *de*-comparatives (to be modified)

	Type mismatch	**ACD$_{small}$**	**Inverse Scope**	**ACD$_{large}$**
Numeral MP	✓	*	*	*
Pro-MP	✓	*	*	*
Reduced FR	✓	✓	%	%
Full FR	✓	✓	✓	✓

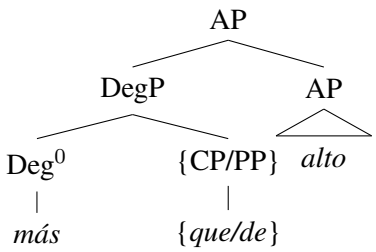
If *más* is a quantifier like *-er/more* (Heim 2001; Bhatt and Pancheva 2004), it will have to QR to avoid a type mismatch at the base position. The data in Table 1 demonstrates that while Numeral and pronominal MPs can appear dislocated due to type mismatches, their surface position is not as high as free relatives. This might entail that QR occurs locally (within the AP or DP that hosts the comparative phrase). This would be consistent with the extraposition and scope facts. The reason why this is the case is because free relatives interact for scope with modal operators and also to resolve ACD, which can motivate longer QR (Kennedy 1997a; Wilder 1997; Fintel and Iatridou 2003; Cecchetto 2004).

Given the identified challenges, an alternative approach to the *Two "más" Hypothesis* is in order. I develop my alternative analysis in the remaining of the paper. Instead of posing an ambiguity in the lexical meaning of the degree head, I argue that we can capture the empirical gaps presented in §3, the generalization in Table 1, and still account for the uncontroversial data, with a single entry for *más*: a generalized quantifier over degrees.

5 A uniform analysis: the *Single "más" Hypothesis*

Before getting into the details of the proposal, I want to mention that, as Mendia (2020) does for *que*-comparatives, I am adopting the 'classical analysis' of comparatives (Bresnan 1973, Heim 2001, Hackl 2000, Bhatt and Pancheva 2004 a.o.). The syntactic structure for comparatives according to this analysis was illustrated in (14), and is repeated in (39):

(39)



However, unlike Mendia (2020), I follow Bhatt and Pancheva (2004) who, building on Fox and Nissenbaum (1999) and Fox (2000), argue that *more/-er* alone undergoes QR and

adjoins to the right. The standard of comparison, regardless of whether it is phrasal or clausal, late-merges as an argument of the QR-ed comparative phrase. In fact, the standard of comparison is late-merged in its surface position.[14]

Evidence for late merger, as argued extensively by Bhatt and Pancheva (2004) and Pasternak (2020), comes from Condition C effects and the scope of the comparison. I do not intend to review these arguments here, but what I would like to note is why late merger takes place. As a quantifier, *-er* is non-conservative (Keenan and Stavi 1986; Bhatt and Pancheva 2004), and traces/copies are interpreted as variables bound by λ-abstracting nodes (Heim and Kratzer 1998; Fox 2001, 2002). When the interpretation of traces/copies is combined with the non-conservative semantics of *-er/más*, early merger of the standard of comparison and the interpretation of its copy after QR leads to a contradiction — the standard is interpreted twice (i) as the restrictor of *-er/más*, and (ii) inside the second argument of *-er/más*. Late merger of the standard avoids the contradiction: after QR of *-er/más*, all that is left to deal with is the lower copy of the quantifier.[15] Mendia (2020) does not make the assumption that the standard of comparison has to be late-merged à la Bhatt and Pancheva (2004), and thus his analysis faces the non-conservativity problem.

In terms of the semantics, the clasical analysis treats *más* as a generalized quantifier of type $\langle\langle dt\rangle, \langle dt, t\rangle\rangle$ across the board. This is the only lexical entry for the comparative morpheme. It was given in (15) and is also repeated below in (40). Since I am proposing that the standard morpheme is not vacuous, I propose the lexical entry for *que* in (41):

(40) $[\![\text{más}]\!] = \lambda P_{\langle dt\rangle}.\lambda Q_{\langle dt\rangle}.[\textsc{max}(Q) > \textsc{max}(P)]$

(41) $[\![\text{que}_{\textsc{deg}}]\!] = \lambda D_{\langle dt\rangle}.\lambda d.[\textsc{max}(D) \geq d]$

Following Pancheva's (2006) analysis of comparative and standard markers in Slavic languages where we also observe a clausal vs. phrasal distinction, I propose to treat *que* along the lines of a pseudo-partitive preposition: *que* will take a set of degrees as its first argument, and will return another set of degrees.[16]

As already mentioned when describing clausal comparatives in the *Two "más" Hypothesis*, [[más]] takes two sets of degrees as arguments. A tree is provided to illustrate the sentence in (42). Extraposition to the right is shown in the tree in (43). I assume that the copula in T is an identity function.

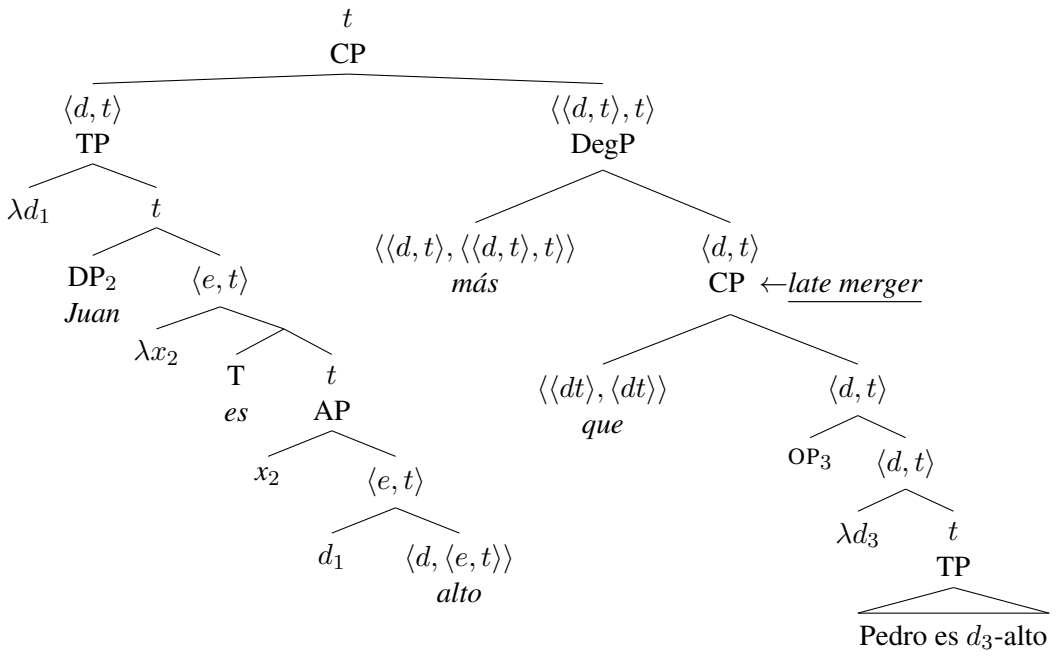
(42) Juan es más alto que Pedro
Juan is more tall that Pedro
'Juan is taller than Pedro'

14. As Bhatt and Pancheva (2004, 18) put it, I use the term extraposition "largely pretheoretically, as a description of the cases where the degree clause appears discontinuous from the degree predicate, separated from it by sentential material such as adjuncts." In the case of numeral and pronominal MPs introduced by *de*, extraposition is not at the clausal level.

15. See Bhatt and Pancheva (2004) and Pasternak (2020) for full details.

16. We can think of *que* as a polymorphic function of type $\langle\langle\sigma,\tau\rangle, \langle\sigma,\tau\rangle\rangle$ which can also take sets of individuals to return other sets in the domain of declarative clauses. In short, for Mendia *que* is semantically vacuous, whereas I treat it as a degree modifier. However, ultimately it is not a big difference.

(43)



As the structure in (43) shows, *más* undergoes QR to the a node of type t (i.e. the matrix TP) leaving behind a trace of type *d* in the base position. The gradable adjective *alto* 'tall' takes this variable as an argument. QR of *más* creates a λ-abstract that binds the degree variable inside the AP. The λ-abstractor combines with the node of type t via Predicate Abstraction (Heim and Kratzer 1998), and returns a set of degrees $\langle d, t\rangle$. This node serves as the second argument for *más*.

Given that the ancillary assumptions have been laid out, it is necessary to address the syntax comparative numerals mentioned in §3.4. In the next subsection, I propose an analysis of comaprative numerals along the lines of Bhatt and Homer's (2019) analysis of differential comparatives. This has the welcome result of unifying differential MP constructions and numeral/pronominal NP standards. In addition, the arguments and data in the next section will allow us to understand the facts captured by the DEG in (27), and will add an additional motivation (on top of type shifting) to Table1 for local QR: NP ellipsis.

5.1 The syntax of comparative numerals

Like Arregi (2013), I take *más* to take the *de*-standard of comparison as a complement at some point in the syntactic derivation. What is crucial is that the complement of *de* cannot be the numeral alone, it must be the numeral and the noun it modifies. This was illustrated in (37b). This structure is consistent with the fact that the class marker (CM) in the numeral *uno* 'one', i.e. the vowel *-o*, is deleted when the numeral is in a local relationship with the noun. This is shown in (44):

(44) Juan compró { *un-o/ un} libro ⇒ Juan compró más de { *un-o/ un} libro
Juan bought one-CM one book Juan bought more than one-CM one book
'Juan bought one book ⇒ Juan bought more than one book' (Arregi 2013)

However, building on Arregi, I propose that the finer-grained structure is such that the DegP – *más de 2 libros* 'more than 2 books' – is a specifier of an NP which may or may not be overt. A schematic representation is along the lines of (45) ignoring extraposition of the standard for the moment:

(45) $[_{NP}\ [_{DegP}\ [_{Deg'}$ más $[_{PP}$ de $[_{MP}$ NUM $NP_1]]\ NP_2]]$

Evidence for the structure in (45) is found in Spanish. In simple numerals or – to put it more accurately – in any construction in which the NP selected by the numeral is overt, the class marker is deleted: (44a) and (46a). If NP_1 is deleted instead, the class marker is retained as seen in (46b):

(46) a. { *un-o/ un} libro
one-CM one book
'one book' CM *deletion in simple numerals*

b. más $libros_{NP_2}$ [de { un-o/ *un} ~~$libro_{NP_1}$~~]
more books of one-CM one book
'more books than one'
NP_1 deletion + CM *retention* + *extraposition/late-merger of de-PP*

Moreover, the retention of the class marker in (46b) is also expected given what is independently known about nominal ellipsis in the language: numerals can license ellipsis of the NP complement (Eguren 2010; Lipták and Saab 2014), and when the numeral licensor is the number 'one', the class marker is obligatory (47):[17]

(47) Juan vio $[_{DP}$ **un** $[_{NP}$ tren eléctrico]], y yo también vi $[_{DP}$ **un-o** ~~$[_{NP}$ tren eléctrico]~~]
Juan saw one train electric and I also saw one-CM train electric
'Juan saw one electric train, and I saw one too' (Lipták and Saab 2014, 8: ex.18b)

This is not an isolated accident from Spanish. In fact, similar facts obtain in Bulgarian (Roumyana Pancheva p.c.). In Bulgarian the numeral two inflects for gender: masculine *dva* vs. fem/neut. *dve*. Masculine inanimate nouns have to appear in the "count" form

17. For reasons that remain unclear, Arregi (2013) does not endorse the second NP_2 in (45). In fact, Arregi does not consider (46) and (47) as evidence for (45). Arregi claims that a structure like (45) "predicts that a language like Spanish is possible where the class marker on the numeral is deleted in simple numerals, but in which ellipsis of NP_1 [the NP inside the standard] instead of NP_2 [the external noun] results in no deletion of the class marker in comparative numerals" (55). However, this is precisely the case of languages like Spanish; namely, the prediction that Arregi claims not to hold is actually borne out: the deletion of the class marker in (46a) and (47) is expected when the numeral stands in a local relationship with an unellided noun.

with numerals, not the plural. The "count" morpheme is an adnumerative form, distinct from singular and plural (Ionin and Matushansky 2018, 199–204). However, masculine inanimate nouns have to appear in the plural form with "many" and "more", not the "count" form. This is shown in (48):

(48) a. Ivan kupi dva { stol-a/ *stol-ove}
Ivan bought two.M chair-M.COUNT/ chair-M.PL
Ivan bought two chairs.'

b. Ivan kupi poveče ot dva { stol-a/ *stol-ove}
Ivan bought more from two.M chair-M.COUNT/ chair-M.PL
Ivan bought more than two chairs.

c. Ivan kupi poveče { stol-ove/ *stol-a} ot { dva/ *dve}
Ivan bought more chair-M.PL/ chair-M.COUNT from two.M/ two.F/NEUT/COUNTING-FORM
Ivan bought more chairs than two.' (Roumyana Pancheva p.c.)

In a simple numeral construction with *2*, the noun 'chair' carries the "count" inflectional morpheme *-a*. The same is observed in the comparative numeral in (48b) which indicates that *dva* 'two' and the noun *stol-a* 'chair' are in a local relationship. The agreement pattern changes when the comparative *poveče* 'more' stands in a local relationship with the noun chair (48c): *-ove* instead of *-a*. Importantly, in the Bulgarian counterpart of *more books than 2*, the noun book bears masculine plural morphology *-ove* as in (48c), and the numeral is obligatorily masculine as in (48a-48b).

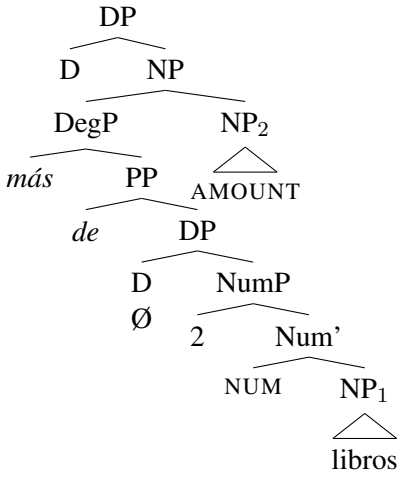
From (48c) we can conclude several things. First, there is an NP that is external to the DegP (NP_2 in (45)) that agrees with the comparative morpheme as evidenced by the masculine plural morpheme. Second, the numeral *2* appears in the masculine form as in (48b) suggesting that there is an elided NP *stol-a* 'chair-M.COUNT' inside the standard. The fact that there is NP ellipsis in the standard is independently supported by nominal ellipsis under a numeral (49): the numeral two retains the same masculine morpheme *-a* when the NP chair has been deleted in the second sentence. In short, Bulgarian comparative numerals behave like Spanish.

(49) Ivan kupi dv-a stol-a. Hristo săšto kupi dv-a.
Ivan bought two-M chair-M.COUNT. Hristo also bought two-M
'Ivan bought two chairs. Hristo bought two too.' (Roumyana Pancheva p.c.)

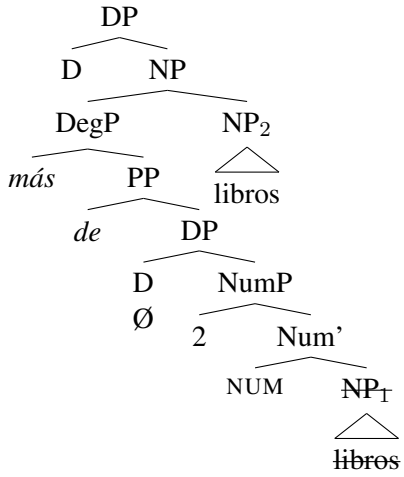
In no language, as far as we know, do we see however the pattern *more books than 2 books* where the NP *books* is repeated. Yet we want to keep the dimension of comparison constant (e.g. *cardinality of books*). I propose that we need not assume that there are two identical NPs (one inside the standard of comparison and another external to the DegP) one of which is arbitrarily deleted. Instead, following Bhatt and Homer's (2019) analysis of numeral differentials, I propose that (i) in cases in which the NP inside the standard is

retained – e.g. (44a) in Spanish (48b) in Bulgarian –, there is a silent NP AMOUNT which is external to the DegP and heads the nominal; and (ii) there is a DegP external NP which is overt, and the counterpart noun inside the standard is deleted under identity –e.g. (46b) in Spanish, (48c) in Bulgarian. In other words, only the noun inside the standard undergoes deletion while the DegP external noun never does. I propose that the structures look like (50) and (51), again ignoring extraposition for the moment:[18]

(50) *more than 2 books*



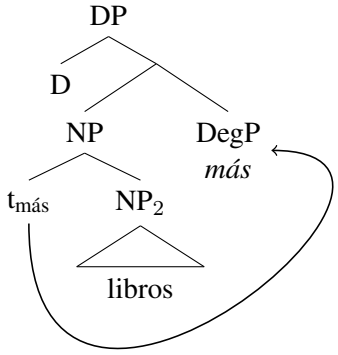
(51) *more books than 2*



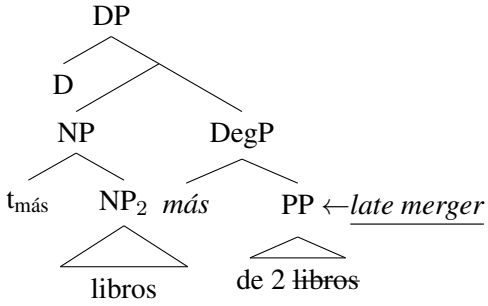
The structures capture the numeral agreement patterns and class maker syncope described above. However, an apparent challenge for these structures, especially for (51) seems to be word order. As illustrated, the DegP should be linearized to the left of the NP_2 *libros* but this is not accurate becasue the standard of comparison does not surface in that position. This challenge is only apparent given that I am adopting Bhatt and Pancheva's (2004) analysis of comparatives according to which the generalized quantifier over degrees undergoes QR and right-adjoins to a node of type t (Fox and Nissenbaum 1999; Fox 2000) where the standard of comparison is late merged. This is illustrated in (52) for the structure in (51) where intermediate projections have been omitted for simplicity:

18. I am assuming that numerals are merged in the specifier of a functional head, labeled here as NumP (cf. Zabbal 2005; Scontras 2013; Martí 2020 a.o.).

(52) a. QR to the right



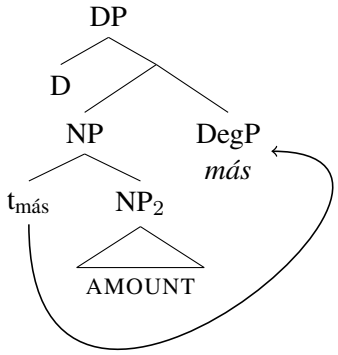
b. Late merger of *de*-standard



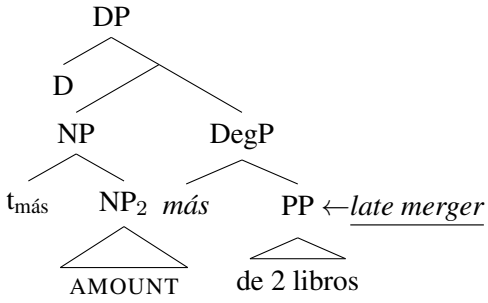
The semantics that I assume for *más* in (40) (a generalized quantifier over degrees) forces it to QR to a position of type t. This DP-internal scope position has been independently argued for in the domain of comparatives (Matushansky 2002) and superlatives (Heim 1999; Sharvit and Stateva 2002; Pancheva and Tomaszewicz 2012). It is in this position where the standard of comparison is late-merged yielding the correct surface order: the standard of comparison is linearized to the right of the DegP external NP. In addition to resolving the type mismatch, QR to the DP internal position is motivated by the need to resolve NP ellipsis. Given the Phonological theory of QR, the spelled-out copy of *más* at PF is always the lowest one (i.e. Bobaljik 1995, 2002; Pesetsky 2000).

This same operation occurs when the DegP external NP is the silent noun AMOUNT, as shown in (53). Despite the fact that surface order invites an analysis in which the standard of comparison is merged (and subsequently interpreted) in the base position of *más*, the syntactic and semantic evidence tells us otherwise: QR is necessary to resolve a type mismatch (Heim and Kratzer 1998; Fox 2000; Cecchetto 2004).

(53) a. QR to the right



b. Late merger of *de*-standard



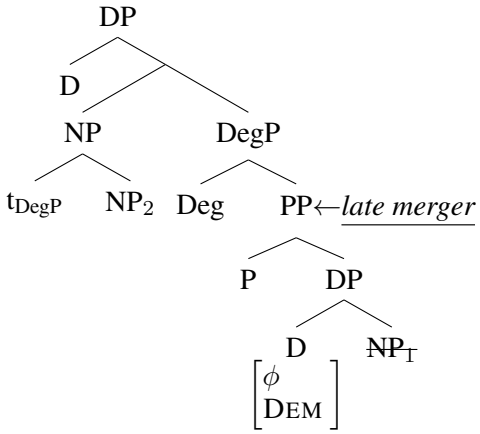
Pronominal MP standards are no different. Pronouns have been argued to be definite determiners whose NP complement has undergone ellipsis (Postal 1966; Elbourne 2001, 2005). Thus, though at PF only an exponent *eso*$_d$ surfaces as a D^0, at LF there is a NP that has to be interpreted. According to Elbourne (2001), there are two conditions that make the NP deletion rule possible: an overt linguistic antecedent, or the presence of deictic aid in the discourse. In a sentence like (54), it is the first condition that is met, whereas in (55) it is the second condition that is met:

(54) Juan leyó 2 libros, y María leyó más libros de eso$_d$
Juan read 2 books and María read more books of that$_d$
'Juan read 2 books and María read more books than that'

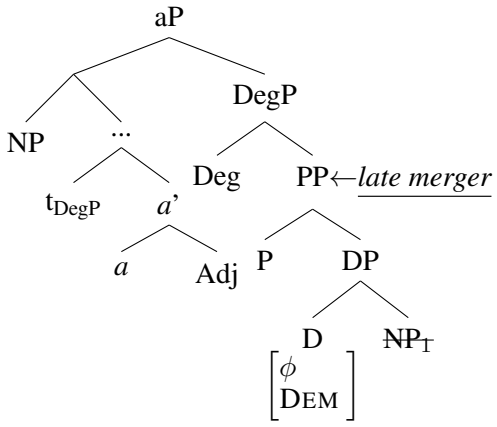
(55) [Juan is 1.75m tall]
María es más alta de eso$_d$ (*eso* = esa altura = 1.75m)
María is more tall of that$_d$ that$_d$ that height 1.75m
'María is taller than that'

The underlying structures for (54) and (55) is given in the trees in (56) and (57) respectively, where the PP has also been late-merged:

(56) Structure of (54)



(57) Structure of (55)



This has the desired result: at LF, the degree quantifier is adjoined to node of type *t* and the conditions for interpretation (in terms of cardinality or quantity) are met. At PF, the NP is deleted and rules of impoverishment taking place before Vocabulary Insertion (Arregi and Nevins 2012; Haugen and Siddiqi 2016) make sure that the correct exponent is inserted under the D node inside the standard.

This constituency is not only empirically motivated considering cross-linguistic observations, but also parsimonious. We achieve a parallelism between *de*-comparatives and *que*-comparatives with respect to QR. In addition to this, this structure has two extra benefits: first, we are able to explain Mendia's (2020) observation that the dimension for comparison needs to be kept constant; second, we have established a parallelism between differential MP constructions and numeral MP comparatives.

Considering the discussion in this section, we can now update the generalization in Table 1 to inlcude the motivation behind the QR of comparative numerals: NP ellipsis. The updated generalization is illustrated in table 3.

Table 2: The height & motivation of QR with *de*-comparatives (Final version)

	Type mismatch	**NP ellipsis**	**ACD$_{\text{small}}$**	**Inverse Scope**	**ACD$_{\text{large}}$**
Numeral MP	✓	✓	*	*	*
Pro-MP	✓	✓	*	*	*
Reduced FR	✓	NA	✓	%	%
Full FR	✓	NA	✓	✓	✓

In the next section, I provide a semantics for *de*. This semantics will allow *más* to take the late-merged MP standard of comparison as its first argument after QR.

5.2 A semantic role for *de*

We have observed how the lexical entry for *más* in (40) appropriately computes the meaning for clausal comparatives: the CP is of type $\langle d, t\rangle$ (as already proposed by Mendia 2020). However, as is, *más* would fail to compose with phrasal comparatives since, as we have assumed, *de* introduces MPs of type *d*. This can be solved if the preposition *de* is not semantically vacuous (Stechow 1984; Rullmann 1995; Pancheva 2006; Alrenga et al. 2012). Instead *de* will take the standard of type *d* as its argument and return an element of the appropriate type to combine with the comparative morpheme. The lexical entry for the preposition is given in (58):[19]

(58) Lexical entry for *de*

$[\![\text{de}]\!] = \lambda d'.\lambda d.[d' \geq d]$

'the set of degrees smaller than or equal to d' '

The lexical entry for the preposition *de* in (58) denotes a function from degrees *d* to sets of degrees $\langle d, t\rangle$. What is more, the lexical entry in (58) reminds us of the meaning of the partitive preposition *de*: it takes a definite description of a plural or mass individual x' (of type *e*), and returns a set of individuals (of type $\langle e, t\rangle$) who are part of x'. This is illustrated in (59). Thus, this analysis follows Pancheva's (2006) thesis that (i) there is a parallelism between the domain of degrees and that of individuals, and (ii) the behavior of *-er/más* and *de* is parallel to that of a quantifier and its partitive first argument.

19. One may still wonder whether by giving *de* a lexical entry to return a type $\langle d, t\rangle$ argument we have pushed the ambiguity problem into a different domain. Although a parallelism following Pancheva (2006) has been established with partitive constructions, one could even abstract more and say the following: *de* as a polymorphic type-shifter defined as a type $\langle\sigma\langle\sigma, t\rangle\rangle$ where σ could be of any possible type (Charlow 2020). Thus, if σ is of type *d*, now we have $\langle d\langle d, t\rangle\rangle$. Thank you very much to Deniz Rudin for pointing this out to me.

(59) a. uno de los estudiantes
one of the students

b. $[\![\text{de}_{\text{part}}]\!] = \lambda x.\lambda y[\text{y is part of x}]$ (Pancheva 2006: 13, ex. 33b)

In addition, I consider the noun inside the standard to have the semantics of measure nouns (Krifka 1989; Rothstein 2009, 2017; Scontras 2013; Ahn and Sauerland 2015; Pasternak and Sauerland 2021). That is, in addition to being a predicate of individuals, the denotation of a noun like *book, year* etc. is degree based. In particular, I follow Pasternak and Sauerland (2021) and Homer and Bhatt (2020) and consider that a measure noun introduces a measure function, takes a numeral of type n as argument, and returns a degree of cardinality/volume/weight etc. on the noun-scale that corresponds to n. The denotation for a measure noun is in (60), where σ is any assignment function and $\sigma(\mu)$ is the measure function that σ assigns to μ. The content of the measure function is resolved by what is being measured (cf. Wellwood 2015, 2019):

(60) a. $[\![\text{NOUN}]\!]^{\sigma}_{\text{degree}} = \lambda n.\sigma(\mu)(n_{\text{noun}})$
'the degree of $\sigma(\mu)$ that n-NOUNs have'

b. $[\![\text{METER}]\!]^{\sigma}_{\text{degree}} = \lambda n.\text{LENGTH}_{\mu}(n_{\text{meter}})$
'the degree of length that n-meters have'

An example of semantic composition of the PP is provided in (62) for the sentence in (55) repeated in (61). After *más* undergoes QR to a node of type t and the *de*-standard is late-merged, (62b) serves as the first argument of *más*.[20] Given the underlying syntax advocated for pronominal MPs in (56) and (57), the standard of comparison is a fully fleshed MP at LF. I take *eso*$_d$ to be the exponent of a D head at PF after NP/MP ellipsis.

(61) María es más alta de eso [eso$_d$ = 1.75 metros]
María is more tall of that$_d$ that$_d$ = 1.75 meters
'María is taller than that$_d$ [that$_d$ = 1.75 meters]' = (55)

(62) a. $[\![\text{MP}]\!] = [\![\text{METERS}]\!]^{\sigma}_{\text{degree}}\,([\![1.75]\!]) = \text{LENGTH}_{\mu}(1.75_{\text{meter}})$

b. $[\![\text{PP}]\!] = [\![\text{de}]\!]([\![\text{MP}]\!]) = \lambda d.[\text{LENGTH}_{\mu}(1.75_{\text{meter}}) \geq d]$

The proposal also makes the right predictions for nominal comparatives such as (38), repeated as (64). The noun *libros* projects its own NP and the comparative is merged in its specifier.[21] Given that *libros* heading the NP is a predicate of individuals $\langle e, t\rangle$, in order to compose with the degree variable of the QR-ed DegP, we need to obtain a measure from that NP and map it to a degree. We can do so by positing a measure function MEAS (Hackl 2000; Bale 2008; Rett 2014; Scontras 2013; Solt 2015; Wellwood 2015, 2019 a.o.). The proposed MEAS is defined in (63).[22] The derivation for the quantified NP in (64) is provided in (65):

20. A tree with the LF representation is provided in Appendix A

21. For the LF representation of (64) in the form of a tree, see Appendix A.

22. The value for μ is resolved by what is being measured. For example, if we are measuring plurarlities, the value for μ will be CARDINALITY: $\mu_{\text{CARD}} = |x| \geq d$. See Wellwood (2019) for details.

(63) $[\![\text{MEAS}]\!] = \lambda P_{\langle e,t\rangle}.\lambda d.\lambda x[P(x) \wedge \mu(x) \geq d]$

(64) Compré más libros de dos
bought.1SG more books of two
'I bought more books than two' = (38)

(65) Semantic derivation of *más libros de 2 ~~libros~~*

a. $[\![\text{2 books}]\!] = \text{CARD}_{\mu}(2_{\text{book}})$ FA

b. $[\![\text{de 2 books}]\!] = \lambda d.[\text{CARD}_{\mu}(2_{\text{book}}) \geq d]$ FA

c. $[\![\text{más de 2 books}]\!] = \lambda Q_{\langle dt\rangle}.[\text{MAX}(Q) > \text{MAX}(\lambda d.[\text{CARD}_{\mu}(2_{\text{book}}) \geq d])]$ FA

d. $[\![\text{MEAS books}]\!] = \lambda d.\lambda x.[book(x) \wedge |x| \geq d]$ FA
$\lambda d.\exists x[book(x) \wedge |x| \geq d]$ $\exists$-Closure

e. $[\![\text{MEAS books más de two books}]\!] = [\![\text{más de two books}]\!]([\![\text{MEAS books}]\!]) =$
$[\text{MAX}(\lambda d.\exists x[book(x) \wedge |x| \geq d]) > \text{MAX}(\lambda d.[\text{CARD}_{\mu}(2_{\text{book}}) \geq d])]$ FA

f. Meaning = "There is a plurality of books, and the cardinality of that plurality exceeds the cardinality of 2 books".

The derivation and computation of the meaning are consistent with the core of the proposal: *más* is a quantifier, *de* combines with an MP of type *d*, and there is no QR beyond the NP for MP numerals.

5.3 Free relatives and ACD

I have shown how giving *de* a semantic value unifies the analysis of *más*. In this section I demonstrate that free relatives (both full and reduced) and resolution of ellipsis inside of them conform to the analysis that I am advocating for.

Following Donati (1997) I assume that free relatives involve movement of a *wh*-operator to the left periphery of CP and then a determiner merges with the CP relabelling the structure as a nominal. This operator movement can be overt as in (66a) or covert as in (66b).

(66) a. $[_{\text{DP}}$ Ø $[_{\text{CP}}$ cuanto$_1$ $[_{\text{C'}}$ C$_{[+\text{Rel}]}$ $[_{\text{TP}}$ yo compré t$_1]]]]$

b. $[_{\text{DP}}$ lo $[_{\text{CP}}$ OP$_1$ $[_{\text{C'}}$ que$_{[+\text{Rel}]}$ $[_{\text{TP}}$ yo compré t$_1]]]]$

We can assume that the syntactic structure of both (66a) and (66b) is identical with respect to the base position and landing site of the *wh*-operator: the operator moves to the left periphery of the clause and creates abstraction.[23] The structures differ regarding the realization of exponents at PF: if the operator is overt (e.g. *cuanto* 'how much') as in (66a), the complementizer is null and so is the determiner that relabels the structure; if the operator is null, the complementizer is spelled out as *que* and the determiner that embeds the CP is

23. According to Nissenbaum (2000a, 2000b) null operators target phase edges, as do their overt *wh*-counterparts. If CPs are phases as it has been extensively argued (Chomsky 2000, 2001; McCloskey 2000; Abels 2003; Fox and Pesetsky 2005b, 2005a; Davis 2020; Keine 2020, a.o), then it follows that the operator lands in Spec,CP.

also spelled-out (e.g. *lo* 'the.NEUT'), as in (66b). The determiner in charge of relabeling is also the one that does the maximalization regardless of whether it is overt or not.[24] The denotation for the maximalizing determiner is provided in (67):

(67) $[\![\text{lo}]\!] = \lambda P_{\langle d,t\rangle}.\text{MAX}[\lambda d.P(d)]$ $\langle\langle d,t\rangle,d\rangle$

The same is true of reduced free relatives first shown in (25). The only difference is that the operator in charge of the abstraction is null and so is the complementizer. But the D in charge of the maximalization is overt. In fact, it is possible to have an overt gradable predicate inside them which provides evidence for a larger structure and operator movement as in degree questions. This behavior parallels free relatives as shown in (68) (also see Fábregas 2020, 81–82):

(68) a. Es más alto de lo (alto) previsto
is more tall of the.NEUT tall forseen
'It/he/she is taller than what it was forseen'

b. Es más alto de lo (alto) que habíamos previsto
is more tall of the.NEUT tall that had.1PL forseen
'It/he/she is taller than however tall we had expect it to be'

Pied-piping of the adjective is optional as independently attested in degree questions in Spanish (Gergel 2009, 2010). Thus, given the structural parallelism between the two constructions, I want to propose that these reduced free relatives are derived exactly as regular free relatives in terms of degree abstraction: a degree operator moves to the left periphery creating a λ-abstract; this λ-abstract binds the degree variable left after operator movement (69):

(69) $[_{\text{DP}}$ lo OP_1 λd$[_{\text{CP}}$ d-alto previsto$]$

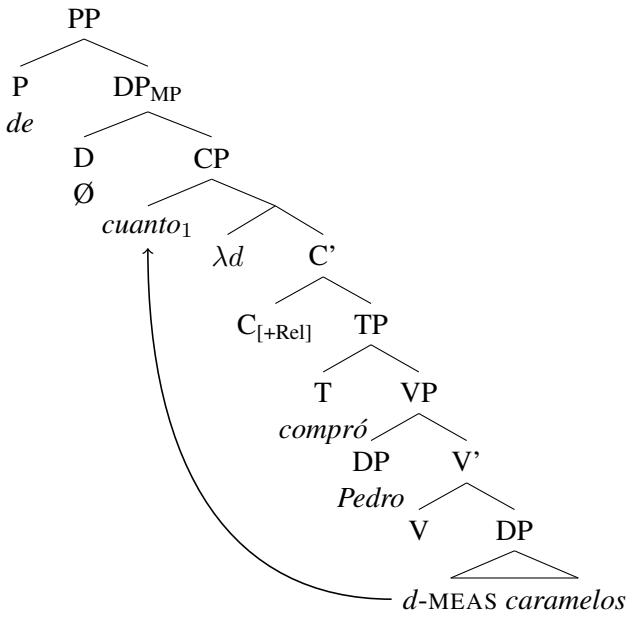
Given that operator movement targets the left periphery of the clause, it will target a node of type t (Nissenbaum 2000a). From that position it will create abstraction over degrees, and the created λ-abstract will bind the degree variable left by the operator movement. A tree for the sentence in (70) and its corresponding semantic derivation are provided in (71) and (72) respectively.[25]

(70) María compró más caramelos de cuantos compró Pedro
María bought more candies of how.many bought Pedro
'María bought more pieces of candy than what Pedro bought'

24. I am grateful to a reviewer for this suggestion.

25. The subject does not move to Spec,TP in the narrow syntax. This is because when there is *wh*-movement, the subject must remain in its base generated position, namely Spec,*v*P (Torrego 1984; Suñer 1994; Gallego and Uriagereka 2006; Gallego 2010). For the purpose of simplicity, I am only using the label VP.

(71)



(72) LF: [$_{PP}$ de [$_{MP}$ D [$_{CP}$ cuantos [$_{TP}$ compró [$_{VP}$ Pedro [$_{DP}$ *d*- MEAS ~~caramelos~~]]]]]]

a. $[\![\text{DP}]\!] = \lambda d.\exists x[candy(x) \wedge |x| \geq d]$

b. $[\![\text{TP}]\!] = \exists x[(candy(x) \wedge buy(p,x)) \wedge |x| \geq d]$

c. $[\![\text{CP}]\!] = \lambda d.\exists x[(candy(x) \wedge buy(p,x)) \wedge |x| \geq d]$

d. $[\![\text{MP}]\!] = [\lambda d.\exists x[\text{MAX}(candy(x) \wedge buy(p,x)) \wedge |x| \geq d]]$

e. $[\![\text{PP}]\!] = \lambda d.[\exists x[\text{MAX}(candy(x) \wedge buy(p,x)) \wedge |x| \geq d']] \geq d$

The denotation of [[MP]] in (72d) is of type d (i.e. a degree). But this cannot combine with [[más]] in (40) because it requires a set of degrees $\langle d,t\rangle$. The preposition *de* lifts the type of its argument: a function from degrees to sets of degrees. [[más]] then composes with (72e) via Function Application.

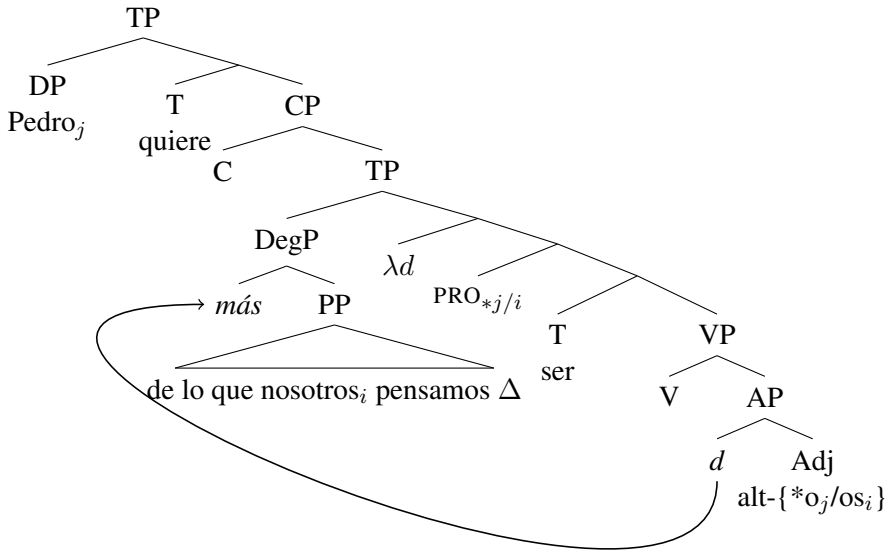
With this in mind, we can now revisit the cases of ACD within free relatives. One example is repeated below:

(73) Pedro quiere ser más alto de lo que pensamos { ~~que~~ ~~quiere~~ ~~ser~~
Pedro wants to-be more tall of the.NEUT that think.PRES.1PL that wants to-be
~~*d*-alto/~~ ~~ser~~ ~~*d*-altos~~}
d-tall.M.SG to-be d-tall.M.PL
'Pedro wants to be taller than what we all believe {he wants /to be}

These are cases of ACD (Sáez del Álamo 1990). One way to resolve ACD is via QR (May 1985; Fox 2002; Bhatt and Pancheva 2004). The analysis of *más* as a generalized quantifier over degrees allows us to adopt this solution. QR needs to target a node of type t that is high enough to remove the ellipsis site from the c-command domain of the antecedent.

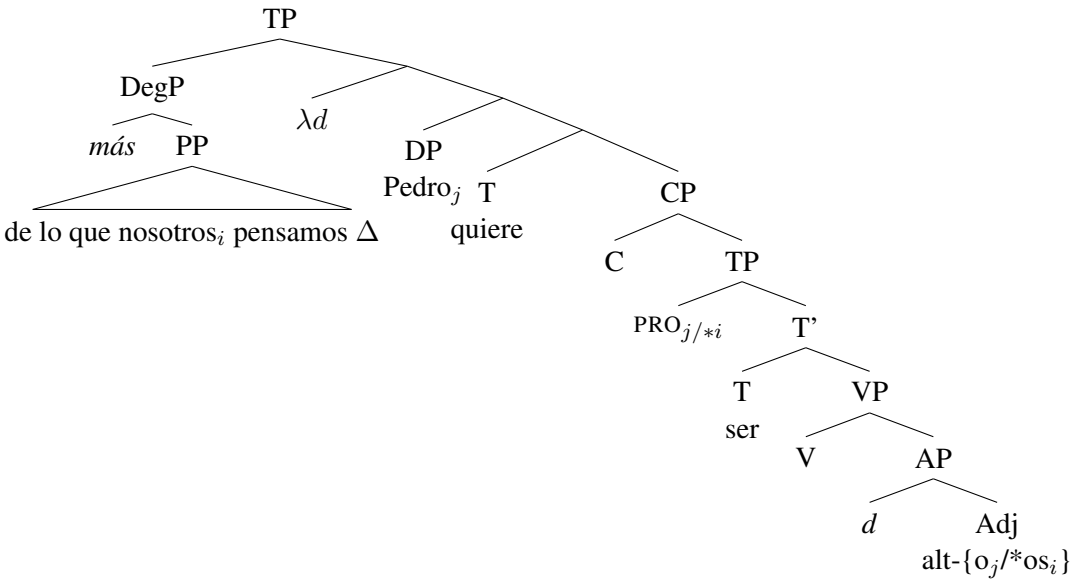
(73) is ambiguous between two possible interpretations: one in which Pedro wants to be taller than we believe we will be; and another in which Pedro wants to be taller than we believe he wants to be. These are obtained by making QR available to two different positions in the structure. The first interpretation is obtained by shorter QR to the non-finite TP. The second interpretation is obtained by long QR into the matrix clause, and above the external argument "Pedro". The two possibilities are shown in (74) and (75).

(74) *Short QR: embedded TP*



For (74), since QR has taken place to the embedded TP above PRO, the ellipsis site has been resolved by copying that TP into the free relative's Δ. What is more, this entails that PRO is no longer coindexed with *Pedro* in the matrix clause but with the subject *nosotr-os* 'we-M.PL' in the standard of comparison. Note that coindexation with *Pedro* is in fact impossible. The impossibility of coindexation is also supported by the agreement with the adjective: only masculine plural agreement *alt-os* 'tall-M.PL is allowed.

(75) *Long QR: matrix TP above subject*



On the contrary, in (75), QR of the DegP to the matrix TP renders a different result. The antecedent of the ellipsis is now the whole clause: "Pedro wants to be d-tall"; thus the ellipsis site Δ is resolved with such an antecedent. Given that the closest controller for PRO is *Pedro*, coindexation is now allowed. Singular agreement in the adjective (*alt-{o}* 'tall-M.SG') supports the fact that *Pedro* controls PRO.

These data demonstrate that QR is a neccesary mechanism to license the ellipsis site contained within the free relative. What is more, the Ellipsis-Scope Generalization in (33) is satisfied: the DegP must contain the antecedent of the ellipsis in its scope.

The same can be said about reduced free relatives. It was shown in §3.3 that reduced relatives can also contain ACD sites, though the size of the site seemed to vary across speakers. The example used to illustrate ACD with reduced free relatives was (35) repeated as (76) for convenience:

(76) Juan pidió más libros de lo previsto
Juan ordered more books of the.NEUT forseen
'Juan ordered more books than what was expected'

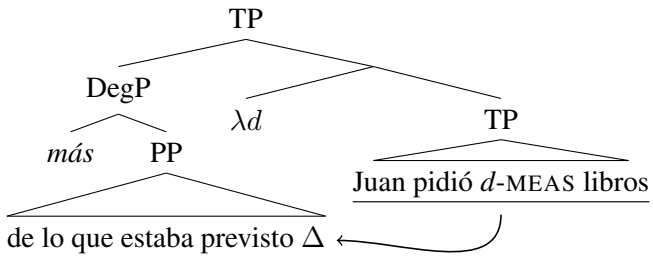
a. % de lo que estaba previsto [$_{CP}$ que [$_{TP}$ pidiera]]
of the.NEUT that was.IPFV forseen that ordered.3SG.IPFV.SUBJ
'than it was expected that he would order' (*Larger ellipsis*)

b. % de lo que estaba previsto [$_{vP}$ pedir]
of the.NEUT that was.IPFV forseen to.order
'than what was expected to be ordered' (*Smaller ellipsis*)

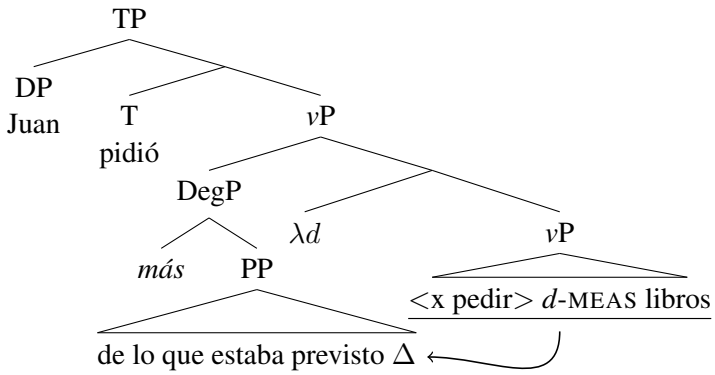
In fact, it was noted that the larger ellipsis site (76a) correlates with the possibility of inverse scope, while the smaller one (76b) never does. This is because the landing site and height for QR is different for the two ACD options. In order to resolve the larger ellipsis

site, QR must target the TP above the external argument. On the contrary, the smaller site is obtained via QR to the edge of the *v*P, which has been argued independently to be a scope position (Fox 1999; Legate 2003; Cecchetto 2004). The lower copy of the verb inside *v*P is uninflected, and thus the *v*P into the ellipsis site will also contain an uniflected copy at LF. A schematic representation of (76) is provided in (77):

(77) a. *Long QR to TP: larger ellipsis site (76a)*



b. *Short QR to vP: smaller ellipsis site (76b)*



Given these structures in (77), the question is why inverse scope over a modal is only possible in (77a) but not (77b). The answer is that that modal operators are merged into the structure higher than *v*P, but arguably lower than tense (Iatridou and Zeijlstra 2013). For cases like (77b), this entails that even if we reconstruct the modal to its base position (above *v*P), the degree quantifier will still be in the modal's c-command domain. Thus, if these speakers do not allow the ACD site to be larger than *v*P, it makes sense that they do not accept inverse scope either. On the contrary, inverse scope is possible in (77a) because the DegP undergoes QR higher than T, which is the modal's final landing site assuming all verbs in Spanish raise to T.

5.4 Taking stock

Having identified in §3.1-3.4 some of the challenges that the *Two más Hypothesis* has to face, in this section of the paper I have shown how the proposal that *más* is a generalized quantifier over degrees can handle both clausal and phrasal (MP) comparatives. One of the major contributions is concerned with the syntax of comparative numerals, which plays

a significant role in our understanding of *de*-comparatives. In particular, I have provided substantial evidence for a particular syntax of comparative numerals which establishes a parallelism with the syntax of numeral differential comparatives. The proposed structure has shed light on the kinds of arguments that *de* must take in the syntax and the semantics: *de* always selects a full MP and never a bare numeral or a pronominal. In fact, either of these options are found on the surface due to NP ellipsis.

Regarding phrasal MP comparatives more generally, I have demonstrated that, by providing a semantics for *de*, the *Single "más" Hypothesis* makes the right predictions with respect to extraposition, scope and ACD resolution. The proposal enables QR of *más* to a node of type t regardless of whether this node is DP/AP internal or higher up in the clause (e.g. *v*P, TP). Though it has been hinted that the reason for each target of QR has to motivated (for example by the need to resolve a type mismatch or resolve ACD), the next section is devoted to address these issues and discusses locality of QR.

6 The locality of QR: extraposition, scope and ellipsis resolution

In §3.1 I presented a generalization that concerned the relation between clausal extraposition and phrasal comparatives. The generalization stated in (27) is repeated in (78) for convenience:

(78) **The *de*-Extraposition Generalization (DEG)**
de-MP standards containing a numeral or a pro-form cannot appear extraposed at the clausal level.

This generalization was complemented by the generalization on Table 3 (also repeated below). According to Table 3, there can be different motivations behind each operation of QR; and the locality of QR seems to be constrained by those operations. For example, NP ellipsis enables a shorter QR than ACD or inverse scope. Thus, since numeral or pronominal MPs only show instances of the former, the degree quantifier must QR to the closest node where it can satisfy that property and resolve the type mismatch: the NP domain. Thus, the standard cannot extrapose at the clausal level. On the contrary, since ACD and inverse scope involve longer movements, to nodes at the clausal level, such an extraposition is guaranteed.

In other words, the conditions that determine the length of QR depend on the diagnostics that we are using to test for it. For example, QR is typically regarded as a clause-bounded operation but under certain circumstances, such as the need to resolve ACD, a quantificational element can QR outside of the containing clause (Kennedy 1997a; Wilder 1997; Fintel and Iatridou 2003; Cecchetto 2004). In fact, as argued by Cecchetto (2004), there are three main motivations for QR: to resolve a type mismatch, to get inverse scope or to avoid the problem of infinite regress in ACD configurations. To these three motivations we can add one: NP ellipsis. I adopt a version of Scope Economy (Fox 1999, 2000,

Table 3: The height & motivation of QR with *de*-comparatives (Final version)

	Type mismatch	**NP ellipsis**	**ACD$_{small}$**	**Inverse Scope**	**ACD$_{large}$**
Numeral MP	✓	✓	*	*	*
Pro-MP	✓	✓	*	*	*
Reduced FR	✓	NA	✓	%	%
Full FR	✓	NA	✓	✓	✓

2002; Cecchetto 2004) such that every step of successive cyclic QR must be independently motivated by at least one of the operations mentioned.

If we take a *de*-standard with a numeral MP, the degree operator must QR (i) to resolve a type mismatch and (ii) for ellipsis to be licensed under identity. The degree operator could in principle raise to a DP-internal node of type *t* (Heim and Kratzer 1998; Matushansky 2002) or to the *v*P edge, which is also of type *t* – Legate (2003) shows that *v*Ps are phases (Chomsky 2000, 2001) and successive cyclic movement including QR must target their edge. However, the longer movement is not empirically motivated since the only ellipsis to be resolved is that of the NP. Thus, QR outside of the NP is ruled out by Scope Economy. This is clearly seen in sentences like *más libros de dos* ~~*libros*~~ 'more books than.PH two <books>'.

The situation is identical in the case of pronominal MPs, e.g. *de eso*$_d$, considering that pronouns are definite determiners whose NP complement has undergone ellipsis (Postal 1966; Elbourne 2001, 2005). A Vocabulary Insertion rule (Halle and Marantz 1993) is responsible for spelling out *eso*$_d$ at PF.

The situation is different with free relatives. I have provided evidence that the need to resolve ACD triggers long QR. In fact, examples like (73) were ambiguous depending on the landing site of QR: embedded or matrix clause. Non-clause bounded QR has also been shown by Cecchetto (2004) for Italian.

Long QR of this type predicts that interaction with intensional predicates should in fact be possible. This prediction was also borne out as illustrated in §3.2. Unlike for numeral and pronominal MPs, where there was no motivation to abandon the more local position, QR is motivated to obtain inverse scope, and thus allowed by Scope Economy.

The same holds for reduced free relatives, though more inter-speaker variation should be factored in. We also found cases in which the size of the ACD site could vary: *v*P or TP. Regardless of the size of the ellipsis, both options in (76) support the claim that the degree quantifier must QR at least as high as the *v*P. For some speakers, QR to the highest TP node is also available as indicated with (76a), where the external argument "Juan" is reconstructed inside the ellipsis site.

Regarding scope with respect to intensional predicates, only those speakers who accept larger ellipsis sites are able to find sentences like (31) and (32) felicitous with the inverse scope. As mentioned at the end of §5.3, this is expected if modal operators are (reconstructed) higher than *v*P, but lower than T (Iatridou and Zeijlstra 2013). As a result, if the speaker's grammar does not find a motivation to posit QR higher than *v*P, neither inverse

scope nor large ACD will be allowed. This is also borne out (see fn.10).

In conclusion, I have made use of a version of Scope Economy, based on Fox (1999, 2000, 2002) and Cecchetto's (2004), such that every step of successive cyclic QR must be independently motivated by at least one of these operations: type mismatch resolution, NP ellipsis, inverse scope and ACD resolution. I have then argued why QR when *de* takes numeral and pronominal MPs must always be extremely local: the type mismatch and the NP ellipsis are resolved by positing a DP/*a*P internal scope position (Heim and Kratzer 1998; Matushansky 2002). Since the ellipsis site can be resolved locally, QR to a structurally higher position is ruled out by Scope Economy. Thus, the lack of scope interactions with modals and the lack of clausal extraposition follow. With respect to free relatives, long QR is allowed by Scope Economy due to two major reasons (each of them independent from the other): the possibility to resolve ACD and inverse scope.

7 All *que*-comparatives are clausal: the case of subset comparatives

Though the generalizations regarding the phrasal and clausal status of *que* and *de* comparatives are robust, given the arguments presented throughout the paper, there is *a priori* a case that challenges the overall claim that *que*-comparatives are always clausal. This is the case of subset comparatives (Grant 2010, 2013) which are introduced by *que* and have been argued to be phrasal (Aparicio 2014; Mendia 2020). In this section, I show that subset comparatives are no different from the other cases of *que*-comparatives and should receive a clausal treatment.

Subset comparatives are constructions in which the denotation of the remnant constituent in the standard of comparison is an element of or a subpart of the set composed of the comparee in the matrix clause. Some of the arguments for the phrasal analysis of subset comparatives include the following (Grant 2010, 2013; Aparicio 2014; Mendia 2020): the constituent inside the standard is always nominal (e.g. NP/DP) (79) and there can only be one remnant (80):

(79) María ha leído más libros que { El Quijote/ esta trilogía}
María has read more books that El Quijote this trilogy
'María has read more books than {El Quijote/ this trilogy}'

(80) * María ha leído más libros este año que el Qujote el año pasado
María has read more books this year that El Quijote the year past
'María has read more books this year than El Quijote last year'

(79) would be expected to be phrasal if the standard marker *que* were a preposition selecting for NP/DPs. (80) could also follow from a direct phrasal analysis in which comparative (sub)deletion is independently ruled out. However, there is no evidence in the language that *que* is a preposition or shows the same distribution as prepositions.

That said, I also want to raise some objections against the phrasal analysis of subset comparatives. The arguments are the following: (i) subset comparatives allow constituents other than DPs to be in the standard; (ii) it is possible to have more than one remnant inside the standard (Nussbaum 2015); (iii) *que* does not assign objective case to pronouns, as prepositions do in the language. In addition, I present cross-linguistic data that strengthen these claims.

In addition to NP/DP remnants, subset comparatives can also have a PP inside the standard as already noted by Aparicio (2014). In fact, the preposition inside the standard matches the preposition in the matrix clause (81):

(81) María se ha desecho **de** más libros que (**d**)-El *Quijote*
María SE has got.rid of more books that of-El Quijote
'María has gotten rid of more books than of just *El Quijote*. (Aparicio 2014)

In (81), the PP *del Quijote* 'of the Quijote' appears inside the standard and meets the subset requirement: *El Quijote* is an element of the set of books María has gotten rid of. Though Aparicio (2014) notes that the preposition *de* is optional, I and three other Peninsular Spanish speakers I have consulted find (81) to not express the desired subset interpretation in the absence of *de*. In fact, the only interpretation that arises if *de* is absent is one in which *El Quijote* is not actually the book but the main character in the story, and María has disposed of more books than he has. This becomes even more clear with examples like (82) in which the preposition *de* is obligatory to get the subset interpretation:

(82) Juan limpia en casas de más escritores que de Murakami
Juan cleans in houses of more writers that of Murakami
'Juan cleans in more writers' houses than just in Murakami's'

In the absence of *de*, the only interpretation possible is one in which "Juan cleans in more houses than Murakami does". This does not meet the subset requirements. However, the presence of *de* yields the desired subset interpretation in (82).

If the standard marker *que* is a preposition in subset comparatives that requires a nominal, examples like (81) and (82) that have a PP are unexpected especially because a sequence of two prepositions is marked in Spanish. In addition, in other languages like Irish, the presence of the preposition is obligatory (83):

(83) *Irish* (Nussbaum 2015, 476: ex. 29)

a. Chónaigh Niamh **i** nós mó cathracha na **i** mBaile Átha Cliath
lived Niamh in COMPR many cities than in Dublin
'Niamh has lived in more cities than just Dublin'

b. # Chónaigh Niamh **i** nós mó cathracha na Baile Átha Cliath
lived Niamh in COMPR many cities than Dublin
'Niamh has lived in more cities than Dublin'

The example in (83a) with the overt preposition *i* 'in' is reported to have the subset reading: there are other cities in addition to Dublin in which Niamh has lived. However, the counterpart in (83b) without the preposition is reported to lack the subset reading. Only an interpretation in which Niamh is being compared to Dublin is possible. Such an interpretation is odd because Dublin is a city and cities do not typically move around.

In addition, if *que* in subset comparatives is really a phrasal standard marker, we expect the a proniminal DP remnant inside the standard to not bear nominative case. This prediction is not borne out either as shown in (84):

(84) *[María, Juan, Laura and you are players of a soccer team, but are now currently on the bench. One of the players on the field is injured and a swap is needed. You urge the coach that the player be you, to which the coach responds...]*

Hay más jugadores en el banquillo que tú
there.are more players in the bench that you
'There are more players in the bench than just you' you $\in$ {x: x is a player}

The second person pronoun appears in the nominative case *tú* 'you.NOM', instead of the objective case *ti* 'you.ACC' that a preposition would typically assign to the pronoun as illustrated in (85):

(85) a. a {ti/ *tú}
to you.ACC you.NOM

b. de {ti/ *tú}
of you.ACC you.NOM

In addition to these properties, subset comparatives can actually have multiple remnants as noted by Nussbaum (2015). However, every remnant must satisfy the subset requirement. For example (80) is not ill-formed because there are 2 remnants (e.g. *El Quijote* and *last year*), but because the adjunct *last year* is $\notin$ *this year*. However, once we control for this, it is possible to have multiple remnants inside the standard as in (86):

(86) a. John read more books to the children than just *Treasure Island* to Mary. (478)

b. Juan leyó más libros en Castilla-y-León que *El Quijote* en Valladolid.
Juan read more books in Castile-and-Leon that El Quijote in Valladolid
'Juan read more books in Castile-and-Leon than just *El Quijote* en Valladolid'

c. * Juan leyó más libros en Madrid que *El Quijote* en Valladolid.
Juan read more books in Madrid that El Quijote in Valladolid
'Juan read more books in Madrid than just *El Quijote* en Valladolid.

In (86a) the DP *Treasure Island* is an element of the set of books and the PP *to Mary* is an element of the set of children. Similarly, the two remnants inside the standard in the Spanish example in (86b) also satisfy the subset presupposition: *El Quijote* $\in$ {x: x is a book} and Valladolid $\sqsubseteq$ Castile-and-Leon. On the contrary, the minimally different (86c)

does not satisfy the subset presupposition because the locative *en Valladolid* 'in Valladolid' is $\not\sqsubseteq$ Madrid.[26]

Last but not least, I want to point out that subset comparatives, just like clausal comparatives, show case connectivity effects: the case of the DP in the standard of comparison matches the case of the compared constituent in the matrix clause. (87) and (88) illustrate this point with Spanish and German data, respectively:

(87) Juan dio caramelos **a** más personas que **a** ti
Juan gave candies DOM more people that DOM you
'Juan gave candy to more people than just (to) you' to you $\in$ {x: x is a person}

(88) *German* (Nussbaum 2015, 476: ex. 27)

a. Ich habe dir mehr **Leute** als nur **den** **Hans** empfohlen
I have you.DAT more people.ACC than just the.ACC Hans recommended
'I recommended more people than just Hans to you'

b. Ich habe dich mehr **Leuten** als nur **dem** **Hans** empfohlen
I have you.ACC more people.DAT than just the.DAT Hans recommended
'I recommended you to more people than just Hans'

The Spanish example in (87) shows connectivity in Differential Object Marking (DOM): *a* 'to'. Interestingly, DOM cannot be assigned by any element in the clause, less a preposition; it has to be assigned locally by a head in the extended projection of the verb that has unvalued features and acts as an Agree probe (*v* or Applicative). This provides compelling evidence that in Spanish, subset comparatives must be clausal and involve comparative deletion.

In the German case in (88a), the bolded DPs match in accusative case, whereas in (88b) they match in dative case. In both cases the subset presupposition obtains: Hans $\in$ {x: x is a person}. If *als* 'than' was a preposition, we would expect it to assign either ACC or DAT, but not both (Lechner 2001, 2004, 2021). Instead, case must be licensed by a functional head in the *v*P domain. This is evidence for a larger structure, namely a CP which has undergone ellipsis.

After revising the arguments for the phrasal analysis of subset comparatives, I conclude that the morpho-syntactic evidence does not support such an analysis for Spanish.[27] In fact, the evidence presented here is better captured under a clausal analysis in which comparative deletion has applied. Therefore, subset comparatives do not present a challenge to *the Single "más" Hypothesis*: *más* is still an ordering relation of degrees and *que* is a complementizer that introduces clausal standards.[28]

26. Valladolid is a city of the region of Castile-and-Leon. Madrid is a city that does not belong to that region.

27. I am not making the claim that subset comparatives are universally clausal. They are clausal in Spanish, German and Irish. In Hungarian, which is a language that makes a clausal vs. phrasal distinction, subset comparatives can make use of the Adessive case-marked phrasal standard of comparison instead of the clausal marker *mint* (see Wunderlich 2001 for the data, though no mention to the construction is made there).

28. I have concentrated on the syntactic status of subset comparatives, but I provide no semantic analysis

8 Spanish and the broader cross-linguistic picture

I have argued in this paper that Spanish has two types of comparatives: a clausal comparative and an MP comparative. However, the latter are not genuinely phrasal as their distribution is restricted to only MPs. These MP standards, though introduced by the preposition *de*, are not derived from a reduced clausal analysis. Even though this is a particular fact of the grammar of Spanish, it is not uncommon to find languages that make a clausal-phrasal distinction but use the phrasal morpho-syntactic standard to introduce MP comparatives. For example, this is the pattern found in Serbo-Croatian, Russian and Greek.[29] I call these *phrasal* purely descriptively, but the constructions in these languages have received a reduced clausal (or a small clause) analysis.

Pancheva (2006) notes these languages have a clausal-phrasal distinction. In Russian clausal comparatives, the degree operator is overt and the standard marker is null. The XP inside the standard shows case connectivity with the comparee in the matrix (89a). Phrasal comparatives have no overt standard morpheme either; the XP inside the standard bears genitive case (89b).

(89) *Russian comparatives* (Pancheva 2006, 4: ex. 10)

a. Germann byl sil'nee čem (byl) ego protivnik
Germann.NOM was stronger what.INSTR was his.NOM adversary.NOM
'Germann was stronger than his adversary was' *Clausal*

b. Germann byl sil'nee svoego protivnika
Germann.NOM was stronger his.GEN adversaryGEN
'Germann was stronger than his adversary' *Phrasal*

Crucially, when the standard is an MP, Russian requires the MP to be genitive marked. In fact, the degree operator is not acceptable in MP comparatives (90).[30] All this is evidence for the fact that MP comparatives in Russian are phrasal

(90) *Russian MP comparative* (Pancheva 2006, 6: ex. 12)

a. ?? Ivan rostom bol'še, čem dva metra
Ivan in.height more what two meters

b. Ivan rostom bol'še dvux metrov
Ivan in.height more what two.GEN meters.GEN
'Ivan measures in height more than 2m

in this paper. The goal is to show that the standard is clausal and not phrasal.

29. I focus on the first two, Greek is the exact same (see Merchant 2012 for details).

30. Pancheva (2006) notes that though the grammar probably does not exclude the construction in (90a), it is unacceptable. I am using the two question marks to faithfully represent Pancheva's (2006) original judgments.

Similarly, Serbo-Croatian uses a clausal standard morpheme *nego-* 'than' and a phrasal one *od* 'from'. Once again, in clausal comparatives, there is case connectivity (91a) — Tanja bears nominative case—, while in phrasal comparatives *od* imposes genitive case on its complement (91b):

(91) *Serbo Croatian* (Pancheva 2006, 10: ex. 21)

a. Anna je viša nego Tanja
Anna is taller than Tanja.NOM
'Anna is taller than Tanja is' *Clausal*

b. Anna je viša od Tanje
Anna is taller than Tanja.GEN
'Anna is taller than Tanja' *Phrasal*

MP comparatives require the standard morpheme *od* and genitive case, as in Russian. This is illustrated in (92):

(92) *Serbo-Croatian MP comparatives* (Pancheva 2006, 22: ex. 61)

a. ?? Ivan je viši nego (što) 2 metra
Ivan is taller than what 2 meters

b. Ivan je viši od 2 metra
Ivan is taller from 2 meters
'Ivan is taller than 2m'

Pancheva (2006) proposes that in these languages, the comparative morpheme is a generalized quantifier over degrees, and that the standard marker has a different semantics depending on whether it introduces a full clause of type $\langle d, t\rangle$, or a small clause or MP of type d in the case of phrasal comparatives.

The proposal I have put forth here owes a great deal to the insight of Pancheva's (2006) analysis. In fact, I have shown how an analysis along the same lines enables us to capture overlooked generalizations in Spanish, but also to establish generalizations about the grammar of comparative constructions more generally.

These data, though based on a small sample of languages (Spanish, Russian, Serbo-Croatian, Greek), seems to point to a correlation or a tendency between phrasal and MP comparatives. However, that is not entirely right since there are languages that morpho-syntactically distinguish clausal and phrasal comparatives, but express MPs clausally. Two languages that I am aware of are Polish (Pancheva 2006) and Lithuanian (Vaikšnoraitė 2021).

In Polish, the standard morpheme *niż* 'than' introduces clausal complements, whereas the morpheme *od* (as in Serbo-Croatian) introduces a nominal complement which is genitive marked. Interestingly, as opposed to Russian or Serbo-Croatian, MP comparatives are introduced with *niż* instead of *od*. The Polish paradigm is given in (93):

(93) *Polish comparatives* (Pancheva 2006)

a. Anna jest wyższa niż Agnieszka
Anna is taller than Agnieszka.NOM
'Anna is taller than Agnieszka is' *Clausal*

b. Anna jest wyższa od Agnieszki
Anna is taller from Agnieszka.GEN
'Anna is taller than Agnieszka' *Phrasal*

c. Anna jest wyższa { niż/ *od} 5 stop
Anna is taller than from 5 feet
'Anna is taller than 5 feet' *MP clausal*

Likewise, it has been argued that in Lithuanian, another language which makes a clausal vs. phrasal distinction, MP comparatives are only compatible with the clausal standard. The clausal standard is *negu* and the comparee must be the subject (94); the phrasal standard is *už*, which case marks its complement as accusative. MP comparatives must be introduced with *negu*. The Lithuanian paradigm is given in (94):

(94) *Lithuanian comparatives* (Vaikšnoraitė 2021)

a. Jonas aušt-esn-is negu (kad) Tomas
Jonas.NOM tall-ER-NOM than.CL that Tom.NOM
John is taller than Tom is' *Clausal*

b. Jonas aušt-esn-is už Tomą
Jonas.NOM tall-ER-NOM than.PHR Tom.ACC
John is taller than Tom' *Phrasal*

c. Jonas aušt-esn-is { negu du metrai/ *už du metrus}
Jonas.NOM tall-ER-NOM than.CL two.NOM meters.NOM than.PHR two.ACC meters.ACC
John is taller than 2 meters' *MP clausal*

In short, the data contributes to the great cross-linguistic variation in the expression of comparison, and more particularly in the grammar of measure phrases. The cross-linguistic picture that emerges from this is summarized in Table 4.

We can classify these languages into 3 groups depending on the type of syntactic constituent allowed inside the standard: Spanish-type languages, Serbo-Croatian-type languages, and Polish-type languages. The category "other" stands for any non-nominal constituents such as PPs, APs etc. In the case of the clausal comparatives, the complement of the standard is always going to be a TP —the maker is a complementizer—, but we are interested in the types of remnants that are allowed.

In Spanish-type languages, the phrasal standard marker can only select for an MP, whereas the clausal standard, which always introduces a clause, can have different types of remnant consitutents as long as they are not MPs. The Serbo-Croatian type differs from the

Table 4: Language types based on the distribution of complements inside the standard of comparison

		Phrasal marker			***Clausal marker***		
		DP$_{[case]}$	**MP**	**Other**	**DP$_{[case]}$**	**MP**	**Other**
Type 1	*Spanish*	*	✓	*	✓	*	✓
Type 2	*SC*	✓	✓	*	✓	*	✓
	Russian	✓	✓	*	✓	*	✓
	Greek	✓	✓	*	✓	*	✓
Type 3	*Polish*	✓	*	*	✓	✓	✓
	Lithuanian	✓	*	*	✓	✓	✓

Spanish-type in that it also allows (case-marked) DPs to be the complement of the prepositional marker: the case on the DP or the measure phrase is licensed by the preposition. Polish-type languages differ from the previous two with respect to the fact that MPs are only possible when the standard is clausal. In none of these languages, the clausal marker licenses case on the remnants.

An immediate question that is raised by the data on Table 4 is why MPs in some languages combine with a phrasal or a clausal standard morpheme. One potential answer is that there is a semantic restriction, i.e. *s*-selection. MPs are ambiguous between a degree interpretation d or a predicate of degrees $\langle d, t\rangle$ (Schwarzschild and Wilkinson 2002; Schwarzschild 2002; Rett 2014). Likewise, as I have shown following previous literature (Pancheva 2006; Bale 2008; Alrenga et al. 2012), standard morphemes can select for a semantic argument that is either a degree or a set of degrees. Thus, the well-formedness of MP comparatives is determined by the matching semantic requirements of the standard morpheme and MP complement: if the standard marker is of type $\langle\langle d, t\rangle, \langle d, t\rangle\rangle$ but the MP is of type d, the derivation crashes. That is the case of Spanish *que*-comparatives.

Across Slavic, phrasal standard markers are of type $\langle\langle d, t\rangle, \langle d, t\rangle\rangle$ according to Pancheva (2006): in Russian and Serbo-Croatian, MPs must be then predicates of degrees allowing the semantic composition, whereas in Polish and Lithuanian they must be definite degrees making the derivation crash. On the contrary, clausal markers are of type $\langle d, \langle d, t\rangle\rangle$ which makes Polish and Lithuanian MPs a suitable argument for them.

The purpose of this section has been to compare Spanish comparative constructions with those of other languages. I have shown that, though there are similarities between Spanish and other languages that make a clausal vs. phrasal distinction in the morpheme introducing the standard, there are also important differences. For example, Spanish is the only language that does not allow any nominal complement inside the phrasal standard: the complement must be an MP, which I have shown in the paper has to denote a degree. I have then argued that the distribution of MPs is related to the *s*-selectional requirements of the standard morpheme.

9 Conclusion

In this paper I have examined comparative constructions in Spanish which can be expressed by a phrasal (*de*) or a clausal standard (*que*). The comparative morpheme that establishes the ordering relation between degrees is the same one, though: *más*. The *Two "más" Hypothesis*, proposed by Mendia (2020), argues that this alternation stems from the fact that *más* in Spanish is ambiguous between a generalized quantifier over degrees for clausal comparatives and a three-place predicate that is interpreted in its base generation position for phrasal ones.

I have shown that while this hypothesis has provided a rich understanding of Spanish comparative constructions, there are empirical challenges that it faces: extraposition, constituency, scope and ACD resolution. In addition, an analysis like Mendia's (2020), and others before him, entails an ambiguity of sorts for *more/más*, itself unsupported in the morpho-syntactic evidence across languages (Pancheva 2006; Bhatt and Takahashi 2011; Bobaljik 2012; Wellwood 2015, 2019). Where languages make such a distinction is in the standard morpheme.

In order to solve these issues, I have proposed an alternative hypothesis, i.e. the *Single "más" Hypothesis*. I have demonstrated that it is unnecessary to introduce a lexical ambiguity in the meaning of the comparative morpheme. In fact, treating *más* as a generalized quantifier over degrees is empirically adequate as we are able to account for the data analyzed by the *Two "más" Hypothesis*, *plus* the challenging data. The claim that *más* is uniform follows from the fact that items such as *de* must have a lexical entry in the semantics (Pancheva 2006; Alrenga et al. 2012): it denotes a function from degrees to sets of degrees.

In addition, I have presented evidence for a novel generalization regarding the extraposition of *de*-standards: numeral and pronominal MPs cannot extrapose into the clause, outside of nominals or APs. I argued that this is due to the fact that QR of *más* higher than the most local node (inside the DP/*a*P) is not motivated and is thus ruled out by Scope Economy. This contrasts with free relatives whose higher QR is motivated by inverse scope of ACD resolution.

One other advantage of the present proposal is the analysis of comparative numerals. Building on Arregi (2013) I have sketched an alternative that is still able to capture the original observations and extend them to Bulgarian. This syntax of comparative numerals has enabled us to derive pronominal MPs from fully fleshed MPs. The pronoun is the spelled-out exponent after the MP has undergone ellipsis at PF. What is important is that we need not assume or posit two different syntactic derivations. Not only has this analysis unified MPs but it has also established a parallelism between differential comparatives and MP comparatives.

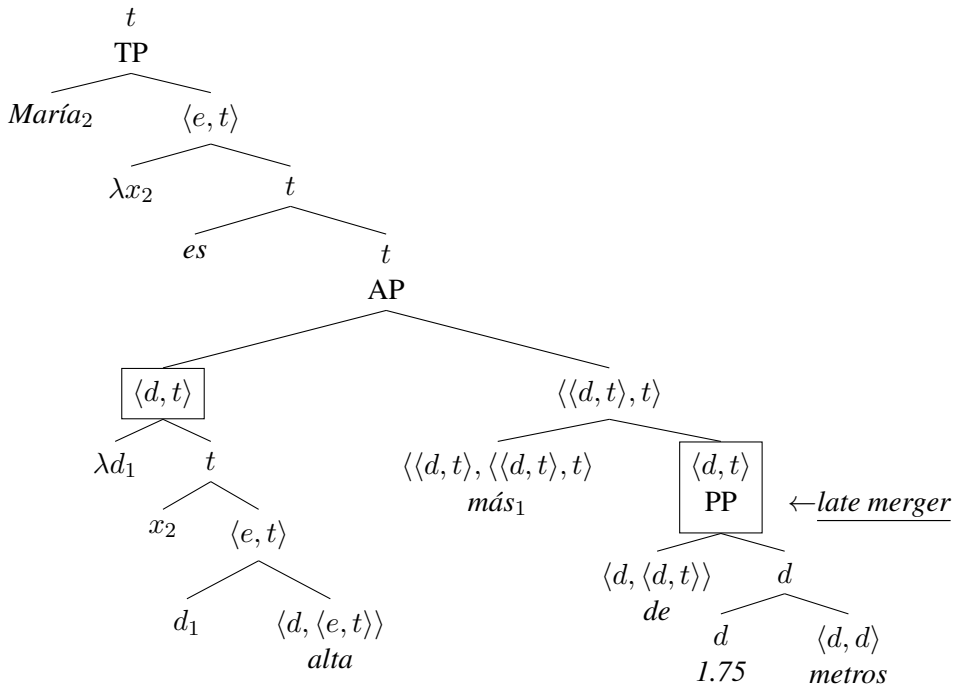
All in all, a uniform analysis of comparative constructions is not only more parsimonious but also empirically appropriate.

Appendix A: LF representations

LF syntax of *María es más alta de eso* in (61)

(61) María es más alta de eso [eso$_d$ = 1.75 metros]
María is more tall of that$_d$ that$_d$ = 1.75 meters
'María is taller than that$_d$ [that$_d$ = 1.75 meters]' = (55)

(95)

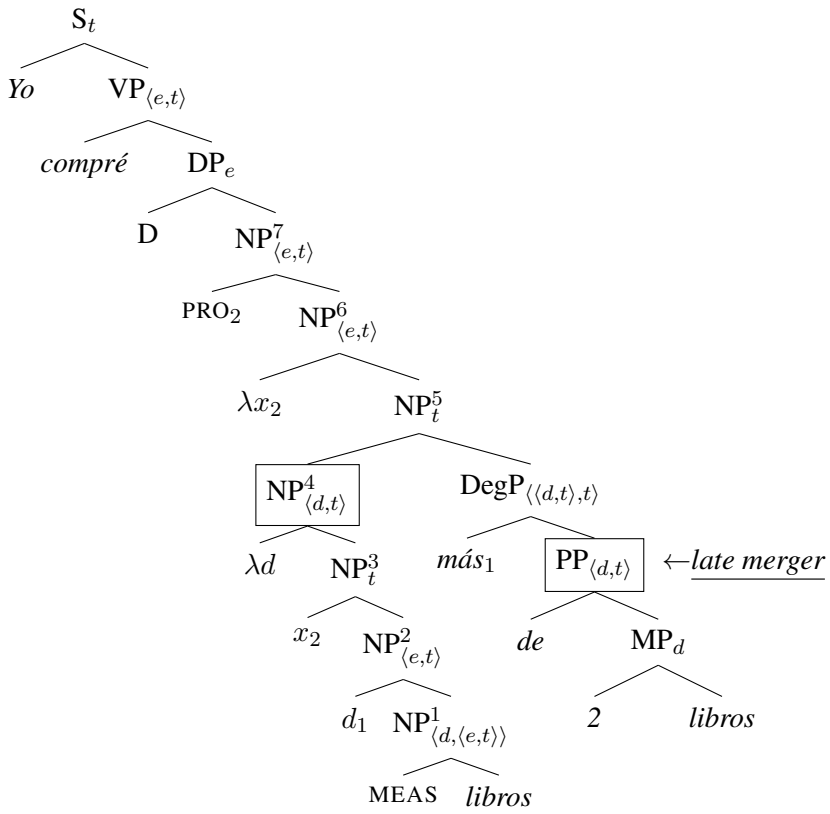


Analogous to (43), the comparative morpheme is generated in the specifier of the AP. It must then undergo QR for type mismatch to a node of type *t* within the AP. This node is made available after the external argument of the adjective – e.g. *María* – has moved out leaving a variable of type *e*. At the DegP level, after QR, the PP introducing the standard of comparison is late merged into the structure. Semantic composition takes place appropriately given that the PP provides a suitable argument for the comparative morpheme: the two arguments of *más* are marked with a box.

LF syntax of *compré más libros de dos* in (64)

(64) Compré más libros de dos
bought.1SG more books of two
'I bought more books than two' = (38)

(96) *LF structure (38/64)*



MEAS takes the predicate *libros* as its argument and returns a gradable predicate $\langle d, \langle e, t\rangle\rangle$. As before, the comparative *más* QRs to a node of type t within the NP; a variable d is left in the base position of the degree morpheme, which NP^1 takes as an argument. After QR, late merger of *de* occurs.[31] Finally, for the appropriate composition of the DP with the verbal predicate *comprar* 'to buy', the DP must be of type e. For this I follow Wellwood (2019, Ch.2, 29) who posits a "little *e*" determiner: an indefinite operator ϵ that takes a predicate of individuals and returns an individual.[32] At PF, the NP *libros* inside the standard of comparison undergoes NP ellipsis.

31. Following Heim and Kratzer (1998) and Matushansky (2002), I assume that there is an NP internal subject position occupied by a semantically vacuous PRO. Though vacuous, movement of PRO leaves a variable of type e that is bound by a λ-abstract. Crucially, movement of PRO enables a type t-node NP internally: NP^3 on (96).

32. The denotation of ϵ is given in (ii):

(ii) $[\![\text{little } e]\!] = \lambda P_{\langle e,t\rangle}.\epsilon x \sim P(x)$ (Wellwood 2019, 29: ex.77)
'some x such that $P(x)$'

Abbreviations

ACC = accusative; CL = clausal; CM = class marker; COMPR = comparative; COND = conditional; DAT = dative; DOM = Differential Object Marking; F = feminine; GEN = genitive; IPFV = imperfective; M = masculine; NEUT = neuter; NOM = nominative; PERF = perfective; PHR = phrasal; PL = plural; PRES = present; PST-PART = past participle; SG = singular; SUBJ = subjunctive;

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