On the Syntax of Canonical Comparatives in European Portuguese

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Abstract

Comparative constructions in English and other Germanic and Romance languages have been analysed either as subordinate or coordinate structures. Focussing European Portuguese (=EP) we will argue, from a syntactic point of view, that there is evidence for the coordinate nature of canonical comparatives in this language. In fact, not only many properties of these constructions distinguish them from subordinate structures, but also most of the characteristics attributed to the subordinate status of comparatives can also be accounted for within the coordinate approach. In particular, the selection of the comparative phrase by the degree marker in the first term of comparison may be viewed as a case of correlative coordination. In the same line of reasoning, the islands effects exhibited by comparative clauses do not constitute a compelling evidence for the systematic presence of a wh-operator, since they may also arise in other cases of A-bar movement. So, though accepting that Comparative and Subcomparative deletions are two distinct cases of Operator-variable chain, relying on empirical evidence across other Romance languages, we will analyse Comparative Deletion in European Portuguese as an instance of (Quantified) Null Object and we will impute Subcomparative deletion to Quantifier Raising at LF for scope assignment purposes.

1. Introduction – a first approach

Comparative constructions in English and other Germanic and Romance languages exhibit an ambiguous behaviour between subordination and coordination. As a consequence, studies in the framework of Generative Grammar either assumed that they are typically subordinate clauses (see, for instance, Bresnan 1972/79, 1973, 1975, 1976, 1977, Hankamer 1973, Chomsky 1977, Jackendoff 1977, Pinkam 1985, Abney 1987, Kennedy 1997), or analysed them, in the whole or partially, as coordinate structures (e.g., Napoli 1983,

Donati 1997, Lechner 1999, Sáez del Álamo 1999, Culicover & Jackendoff 1999 and Bianchi & Zamparelli 2001).[36]

Paying special attention to comparative constructions with adjectives as in (1), most studies considered that the comparative constituent, be it clausal or phrasal, is a subordinate complement or adjunct of DegP (Degree Phrase), the extended projection of A(djective) (see, for instance, Abney 1986, Kennedy 1997, Lechner 1999).[37]

(1) a. Geralmente os homens são mais altos do que as mulheres.
Generally the men are more tall of.the that the women
'Usually men are taller than women.'
b. Os adultos podem ser tão frágeis como as crianças são.
The adults may be so frail as the children are
'Adults may be as frail as children are.'
c. Ela comprou um dicionário tão espesso quanto completo.
She bought a dictionary so thick as.much comprehensive.
'She bought a dictionary as thick as comprehensive.'

This same analysis has been tacitly or explicitly extended to comparatives affecting the remaining lexical categories, i.e. NP, AdvP, VP and PP, as illustrated in (2):[38]

(2) a. Ele tem tantos amigos como a Maria tem familiares.
He has as.many friends as the Maria has relatives
'He has as many friends as Maria has relatives.'
b. As pessoas não andam tão depressa como os carros.
The people not walk so fast as the cars
'People do not walk as fast as cars.'
c. O João descansa menos do que trabalha.
The João rests less of.the that works
'João rests less than he works.'

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[36] Notice that Culicover & Jackendoff 1999, as well as Bianchi & Zamparelli 2001, analyse a very specific case of Comparatives, which they called Correlative Comparatives.

[37] In most languages, Adjectives seem to establish a privileged relation with the degree system: they may exhibit degree morphemes, as in English (cf. (i)) or present specific lexical forms according to the kind of degree they stand for, as illustrated for Portuguese in (ii):
(i) Mary is prettier than her sister.
(ii) A Ana é maior/melhor/pior do que a Maria.
The Ana is taller/better/worse of the that the Maria
'Ana is taller/better/worse than Mary.'

[38] Studies on Comparatives are usually restricted to AP and NP. However, reference to other types is often made. For Portuguese, see, for instance, Lopes 1971/72 (chap. VII, 4.) and Mateus et alii 1989 / 1992 (p. 314), where it is claimed that the property of degree affects adjectives, nouns, adverbs and verbs.

d. Com o trabalho excessivo que tem tido, ela sonha mais com a cama do que na cama.
With the work excessive that has had, she dreams more with the bed of.the that on.the bed.
'With all the work she has had, she dreams more about bed than on bed.'

Apparently corroborating a subordination approach to comparatives, the similarity between the connectors introducing the comparative expression and the wh-morphology suggests that relativization is at work in these constructions – see the forms *(d)o que*, (*de) quanto* and *como* in the Portuguese examples in (1) and (2), above.[39]

However, some empirical evidence contradicts the subordination analysis of the canonical comparatives. Relying on data like the following, some authors have argued in favour of the coordinate nature of Comparatives, at least for some of their subtypes (cf. Napoli 1983, Pinkam 1985, Sáez del Álamo 1999, Lechner 1999):

(3) Mais adolescentes do que adultos participaram no concurso.
More teenagers of.the that adults participated on.the contest
'More teenagers than adults have participated on the contest.'

In (3) the constituent introduced by the comparative connector is phrasal, not sentential. In fact, the contrast between (3) and the ungrammatical example in (4b) suggests that there is no corresponding clausal counterpart of (3) such as (4a). Assuming that subordination always implies the presence of a sentential structure, examples like this one constitute a counter-evidence to the subordination analysis of Comparatives.

(4) a. ??Mais adolescentes do que adultos participaram no concurso participaram no concurso.
More teenagers of.the that adults participated on.the contest participated on.the contest
'More teenagers than adults participated on the contest participated on the contest'
b. *Mais adolescentes do que adultos participaram [-]participaram no concurso.
More teenagers of.the that adults participated [-] participated on.thecontest
'More teenagers than adults participated participated on the contest'

[39] About other languages see 2.2..

Though in other languages canonical Comparatives may exhibit either subordinate or coordinate structures, this is for example the case of Spanish as shown in Sáez del Álamo 1999, in contemporary EP there is syntactic evidence for considering them a subtype of coordinate constructions.

Yet, accepting the characterisation of Comparatives as coordinate structures, two main problems arise: (i) How can the correlation between the degree morphology and the presence of the comparative constituent be accounted for? (ii) How to explain the island effects displayed by Comparatives like (5)?

(5) * O euro é mais valioso do que eu ignoro *quem* afirmou que era.
The euro is more valuable of.the that I ignore who said that was
'The euro is more valuable than I ignore who said that it was.'

As for the first question, we will assume that the relation between the degree marker and the compared expression may be captured in terms of correlative coordination, extending an approach that has been used to deal with some specific types of comparatives (cf. Culicover & Jackendoff 1999, Bianchi & Zamparelli 2001).

As far as island effects are concerned, we will claim that they are mainly a consequence of the locality conditions over Quantifier Raising at LF, which apply to the quantificational compared elements (see Pinkam 1985, Cover 1993, Longobardi 1991).[40]

Cross language variation in canonical Comparatives is not only restricted to their status as coordinate or subordinate structures. Languages also differ in exhibiting or not Comparative Deletion. In opposition to other Romance languages, EP aligns with English in presenting this phenomenon, as illustrated in (6) and (7) vs. (8). Considering the contrast between languages like French, which present the compared element recovered by a clitic pronoun, and the Portuguese and English cases, we correlate Comparative Deletion with Null Object, a construction available in EP, but with no widespread occurrences in English.

(6) Mary buys more books than you buy.

(7) A Maria compra mais livros do que tu compras [-].
The Maria buys more books of.the that you buy
'Mary buys more books than you buy.'

(8) Marie achète plus de livres que tu n' *(en) achètes [-].
Marie buys more of books that you not *(of.them) buy
'Marie buys more books than you buy.'

[40] For the interaction of Quantifier Raising with the Coordinate Structure Constraint in this construction see section 5 of this paper.

In order to discuss the referred issues this paper is organised as follows: in section 2, we will review the syntactic arguments for the subordination approach to Comparatives and show that they fail to apply to EP. In section 3, we will argue for the coordinate analysis of Comparatives in EP, and, comparing canonical comparatives in EP, Italian and, specially, Spanish, we will suggest that the systematic coordinative pattern of Comparatives in EP is the result of a diachronic evolution which led to the reanalysis of the comparative connectors as conjunctions. In section 4, discussing recent proposals in the literature, we will try to assign to comparatives the appropriate structural configuration in such a way as to account for the correlation between the degree morpheme and the compared phrase. In section 5, the island effects in absence of wh-subordination in contexts of Comparative Deletion and Subdeletion will be dealt with. Section 6 summarises the main results achieved.

2. The main arguments for the subordination source of Comparatives

Assuming the subordination approach to Comparatives, the two central concerns of the syntactic analysis are to determine the relevant subordinating constituent and the subordinated status of the comparative expression. We will review the arguments adduced in the literature for both and evaluate their adequacy for EP.

2.1. The Degree morphology as the subordinating element in Comparatives

Trying to capture the correlation between the degree marker and the occurrence of the Comparative constituent, studies in Generative Grammar have conceived the Comparative clause as the modifier of a lexical projection (AP, NP, VP, ADVP) specified by a degree word (Bresnan 1972/1979, 1973) or as the modifier or complement of the projection of the functional category Degree, i.e. DegP (Abney 1987, Kennedy 1997, Lechner 1999). Thus, in this framework, Comparatives have been primarily correlated with relative rather than adverbial clauses.[41]

[41] Apparently disregarding this connection, grammatical studies incorporating the Greko-Roman heritage tend to include comparative constructions among the adverbial clauses, these ones being characterised as sentential adjuncts – see, among others, for Portuguese, Dias 1917, Said Ali (s.d), Bechara 1928, Cunha 1972, Cunha & Cintra 1984.
However, there is a number of properties that distinguish comparatives from adverbial clauses across languages (see, for instance, Quirk & alii 1972, 1985, for English, and Fonseca 1994, Peres 1997 and Matos & Brito (in press), for Portuguese). According to Matos & Brito (in press), we emphasise the following ones: they have no mobility inside the compared structure (cf. (i)), they allow Gapping, an elliptical construction banned from adverbial subordination (cf. (ii)), the connectors *(do) que* 'than' and *como* 'as' in Comparatives do not necessarily determine the presence of an inflected sentence (cf. (iii)) and they may co-occur with the nominal pronoun *isso* 'it/that' (cf. (iv)):

Current analyses of Comparatives mostly rely on Abney 's (1987) proposal, represented in (9). In this configuration DegP is the extended functional projection of A(djective), Deg^{o} selecting AP as its complement.

(9) $[_{DegP}\ [_{Deg'}\ Deg^{o}\ AP\ ]]$

Elaborating on Abney's analysis, Kennedy 1997 and Lechner 1999 propose different representations for AP Comparatives. Kennedy (1997:117) assumes that the AP is the complement of Deg^{o}, as in Abney 1987, and the comparative constituent a right adjunct of Deg':

(10) $[_{DegP}\ [_{Deg'}\ [_{Deg'}\ Deg^{o}\ AP\ ]\ XP_{than/as}\ ]\ ]$

On the contrary, Lechner (1999: 32) claims that the XP Comparative is a complement of Deg^{o}, and the AP is the specifier of DegP, as in (11):[42]

(11) $[_{DegP}\ AP\ [_{Deg'}\ Deg^{o}\ XP]$

One of the major problems of both analyses is to account for the linear order, when extended to Comparatives like those in (12) to (14), where the second term of comparison ultimately occurs in a discontinuous position with respect to the one overtly bearing the degree marker.[43]

(i) *Do que o João é trabalhador, o Luís é mais inteligente.
Of.the that the João is hard.worker, the Luís is more intelligent
'Than João is hard worker, Luís is more intelligent.'

(ii) O João trouxe tantos livros da livraria como a Maria [-] da biblioteca.
The João brought so.many books from the bookshop as the Mary [-] from.the library.
'João brought as many books from the bookshop as Mary from the library.'

(iii) Algumas crianças admitiram ver mais/menos televisão do que estudar (/*do que estudavam).
Some children admitted watch more/less television of.the that study (/*of.the that studied).
'Some children admitted to watch more/less television than to study (/*they studied).'

(iv) A Ana é mais alta do que isso.
The Ana is more tall of.the that it/that.
'Ana is taller than that.'

[42] Lechner (2001), although not specifying the structure of the first comparative sentence, assumes, as in Lechner 1999, that this term includes the second comparative clause, which is moved by Extraposition to the end of the first clause, where it acquires a coordinate status. He also claims that in comparatives "Extraposition is motivated by the same principles which for instance drive extraposition of relative clauses" (Lechner 2001:689). Yet, he does not indicate any of these principles.

[43] At first glance, Lechner's analysis seems only capable to account for the linear order of Adjectival comparatives exhibiting degree suffixes as (i) in English; in fact,

(12) A Maria oferece mais gelados ao filho num mês do que a Ana oferece à filha num ano.
The Maria offers more ice creams to.the son in.a month of.the that the Ana offers to.the daughter in.a year.
'Maria offers more ice creams to her son in a month than Ana offers to her daughter in a year.'

(13) Mais estudantes frequentam a biblioteca central do que professores [-] a biblioteca do Departamento.
More students frequent the library central of.the that professors [-] the library of.the Department.
'More students visit the main library than professors the Department's library.'

(14) A Ana escreve tão frequentemente artigos como dá aulas.
The Ana writes so frequently articles as gives classes.
'Ana writes papers as often as she teaches.'

The discontinuity between the degree marker and the comparative constituent has been often attributed to Extraposition, most authors assuming that at the level of LF these elements must form a unit (cf. for instance, Kennedy 1997:199, Lechner 2001). However, the alleged sources of the extraposed sentences are often unacceptable, as illustrated in (15) and (16) for (12) and (13). In particular, the example in (16) is severely ill-formed, since EP is a language that does not allow backwards Gapping.

(15) ??A Maria oferece [mais gelados [do que a Ana oferece à filha num ano]] ao filho num mês.
The Maria offers more ice creams of.the that the Ana offers to.the daughter in.a year to.the son in.a month.
'Maria offers more ice creams than Ana offers in a year to her son in a month.'

(16) *[Mais estudantes [do que professores [-] a biblioteca do Departamento]] frequentam a biblioteca central.

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examples like those in (iia) are not directly captured by the configuration in (11), as shown in (iib).
(i) a. Mary is taller than her sister
b. [$_{DegP}$ [$_{AP}$ tall] [$_{Deg'}$ [$_{Deg^o}$ -er] [$_{XP}$ than her sister]]
(ii) a. Mary is less intelligent than her brother was.
b. [$_{DegP}$ [$_{AP}$ intelligent] [$_{Deg'}$ [$_{Deg^o}$ less] [$_{XP}$ than her brother was]]
However, Lechner 1999 posits the existence of a Q-projection selecting the DegP, onto which the Deg^o raises to check its quantificational features (see (iii)).
(iii) [$_{QP}$ less [$_{DegP}$ [$_{AP}$ intelligent] [$_{Deg'}$ [$_{Deg^o}$ ~~less~~] [$_{XP}$ than her brother was]].

More students of.the that professors [-] the library of.the Department frequent the library central
'More students than professors the Department's library visit the main library.'

In order to prevent sentences like (16), Extraposition should have to obligatorily apply before Gapping takes place. This is an unexpected situation, since Extraposition has been originally conceived as a non-obligatory operation applying at PF. Besides, the alternative approach to Extraposition in terms of Clause Stranding, proposed in Kayne 1994 for Relative Clause Extraposition, is not applicable to these cases. In fact, we would obtain, instead of (13), the unacceptable result in (17), assuming that the nominal "head" of the presumed DegP is raised, leaving behind the comparative clause, as represented in (18):[44]

(17) *Mais estudantes frequentam do que professores [-] a biblioteca do Departamento a biblioteca central.
More students frequent of.the that professors [-] the library of.the Department the library central
'More students than professors the Department's library visit the main library.'

(18) $[_{IP}$ [Mais estudantes]$_i$ $[_{I^o}$ frequentam]$_j$ $[_{VP}$ $[_{DegP}$ t_i do que ...] $[_{V^o}$ t_j] a biblioteca central]]

So, as noted in Kayne 1994, the Extraposition analysis of Comparatives is inadequate, and an alternative account should be devised. However, without positing Extraposition, the hypothesis that the degree morpheme subordinates the comparative expression, both being merged into a single constituent, seems much less plausible.

[44] Extraposition is highly restricted in Portuguese even in constructions that are allegedly related to comparatives, such as relatives. In fact, the following example is ungrammatical:
(i) * Um homem telefonou que eu conheço.
A man phoned that I know
In this language only some sentences with predicative and unaccusative verbs and indefinites as subjects such as in (ii) and (iii) are less marginal:
(ii) ?/??Alguém está além que é meu amigo.
Someone is there that is my friend
(iii) ?/??Alguém chegou que é meu amigo.
Someone arrived that is my friend
These facts suggest that what is happening in (ii) and (iii) is the raising of the indefinite expression rather than Extraposition.

2.2. The subordinated nature of the Comparative constituent in some classical analysis

Bresnan (1973, 1975, 1976a, 1976b, 1977) and Chomsky (1977) constitute two of the most influential approaches to Comparatives as subordinate clauses. They differ with respect to the structure they assign to the compared constituent.

Bresnan argues that the comparative connector, *than* or *as*, is the complementizer of a subordinate clause which contains a quantified expression correlated with the degree expression in the first term of comparison, the latter being also analysed as a quantified structure:[45]

(19) John is taller than his father is [-] fat.

(20) John is [$_{QP}$ er-much] tall [$_{CP}$ [$_{C}$ than] [$_{IP}$ his father is [$_{QP}$ ~~x-much~~] [$_{A}$fat]]

According to Bresnan, the obligatory non overt quantifier in the second term of comparison (see (20)), results from the rule of Comparative Subdeletion. If the whole compared constituent is missing, it is assumed that the rule of Comparative Deletion has applied (see (21)). Both rules are often conceived as instances of the same transformational operation.[46]

(21) a. John is taller than his father is [-]
b. John is [$_{QP}$ er-much] tall [$_{CP}$ [$_{C}$ than] [$_{IP}$ his father is [$_{QP}$ ~~x-much~~] [$_{A}$~~fat~~]]

In turn, Chomsky (1977) considers that *than* and *as* are prepositions which introduce a clause. In Comparative Deletion configurations, the compared constituent is analysed as a wh-element – null, as in (21a), or overt, as in some American dialects (cf. (22)).

(22) John is taller than what his father is.

Wh-Movement of this constituent to Comp yields a wh-operator, binding a gap interpreted as a variable (cf. (23) for (22)):

(23) John is taller [$_{PP}$ than [$_{CP}$ [$_{OP}$ ø$_{wh}$]$_{i}$ his father is [$_{WhP}$ t$_{i}$]]]

Chomsky argues in favour of this analysis by showing that Comparative Deletion displays properties characteristic of wh-Movement, namely, it leaves

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[45] Cf., for instance, the representations proposed in Bresnan 1973: 319, 322.

[46] Bresnan 1975, 1976a, 1976b collapses these two rules into a single rule of Deletion on Comparatives.

a gap, presents apparent unbounded movement with bridge verbs (cf. (24)) and exhibits island effects (cf. (25)):

(24) John is taller than [$_{CP}$ I thought [$_{CP}$ you said [$_{CP}$ his father is [-]]]]

(25) *John is taller than [$_{CP}$ I know [$_{CP}$ a man [$_{CP}$ who was [-]]]]

Yet, with respect to the possibility of subsuming Comparative Subdeletion (cf. (26a)) under wh-movement, Chomsky's approach remains inconclusive, emphasising that, since the acceptability of Subdeletion decays in contexts of unbound movement (cf. (26b)), its obedience to island constraints (cf. (26c)) may be the manifestation of a more severe constraint on its occurrence inside complex phrases.[47]

(26) a. The desk is as high as it is [-] wide.
b. ?The desk is as high as they believe that Bill claims that it is wide.
c. *The desk is as high as they believe the claim that it is wide.
(Chomsky 1977:119)

Nevertheless, the exclusion of wh-Movement from Subdeletion cases may imply the impossibility of generalising the wh-analysis of Comparatives across languages. In fact, on a par with languages which exhibit Comparative Deletion, such as English and Portuguese, there are others, like French or Italian, which present the compared element recovered by a clitic pronoun.[48] In these languages a strategy akin to Subdeletion seems to be the only one available.

(27) Il a acheté plus de livres qu' il ne pouvait *(en) porter.
He has bought more of books than he not could *([$_{CL}$ of.them]) carry
'He bought more books than he could carry'
(cf. Pinkam 1985:5)

(28) Maria ha mangiato più biscotti di quanti *(ne) ha mangiati Giulia.
Maria has eaten more cookies than what *(of.them) has eaten Giulia
'Maria ate more cookies than Giulia ate.'
(cf. Donati 1997:149)

However, relying on the similarity between the items that introduce comparative clauses and the corresponding wh-word in several languages including

[47] Chomsky 1977: 119 suggests that Subdeletion obeys to what he calls a "complex phrase constraint".

[48] As Pinkam 1985 and Sáez del Álamo remark, this is not always possible, because there are gaps in the clitic systems of each one of these languages. Thus, for example, French does not have a clitic corresponding to Adverbial 'Comparative Deletion'.

Italian, Donati 1997 extends Chomsky's 1977 analysis, claiming that Comparatives are free relatives, crucially differing from the core cases by the fact that the wh-constituent is not a definite determiner but a quantifier.[49] Hence, she argues that Comparative and Subcomparative Deletions are both instances of wh-movement, disregarding the decay in acceptability of Subcomparatives in sentence complex domains, and emphasising those of island sensitivity, as illustrated in (29):

(29) *Ho mangiato più biscotti di quanti$_i$ ho incontrato un uomo che ne ha mangiati t_i.
Have eaten more cookies of which have met a men who of-them have eaten
'I ate more cookies than I met a man who ate.'
(cf. Donati 1997:146)

Considering now EP, these proposals present certain difficulties to accommodate the data.

The first problem concerns the categorial nature of the comparative connectors *do que* 'than' and *como* 'as'. At first glance, some empirical evidence seems to argue for the complementizer status of the comparative connectors in EP. In fact, in phrasal comparatives *do que* 'than' tends to be spelled out as *que* (cf. (30a))[50] and, as shown in (31), in this language there are complementizers (almost) homologous to the comparative connectors *(de) que* and *como* 'as':

(30) a. Os alunos lêem menos livros (do) que revistas.
The students read less books (of.the) that magazines
'The students read less books than magazines.'
b. Ela vê tantos filmes como a irmã peças de teatro.
She watches so.many pictures as the sister plays of theatre
'She watches as many pictures as her sister theatre plays.'

(31) a. Ela esqueceu-se (de) que as crianças estavam em casa.
She forgot-herself (of) that the children were at home
'She forgot that the children were at home.'

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[49] Elaborating on the raising analysis of relatives proposed in Kayne 1994, Donati considers that, like the remaining free relatives, Comparatives are defective relatives lacking a syntactic layer, namely the DP-phrase embedding the clause. According to the raising analysis, this means that free relatives/comparatives involve movement of a determiner-like head to Cº, instead of movement of DP to Spec, CP.

[50] In sentential comparatives the connector is normally *do que* and not simply *que*, but it seems that there is some dialect variation, because Portuguese speakers do not have the same judgement about sentences like (i):
(i) * ? A Ana é mais alta que a mãe é.
The Ana is more tall that the mother is
'The Ana is taller than her mother is.'

b. Esse é um livro que nós vamos ler em breve.
This is a book that we are.going read soon.
'This is a book that we are going to read soon.'
c. Como estava cansada, fui para casa.
As was tired, went to home
'As I was tired, I went home.'

Yet, despite these apparent similarities, their distribution shows that they belong to two separate classes: while comparative connectors may co-occur with a pronominal instancing the whole comparative constituent, as in (32), complementizers in completive, relative or adverbial clauses are banned from this context, as illustrated in (33), the correspondent of (31):

(32) a. Os alunos lêem menos livros (do) que isso / revistas.
The students read less books (of.the) that it / magazines
'The students read less books than that / magazines.'
b. Ela não vê tantos filmes como isso.
She not watches so.many pictures as it/that
'She does not watch as many pictures as that.'

(33) a. *Ela esqueceu-se (de) que isso.
She forgot-herself (of) that it/that
'She forgot that that.'
b. * Esse é um livro que isso.
This is a book that it/that.
c. *Como isso, fui para casa.
As it/that, went to home

The alternative characterisation of the comparative connectors in EP as prepositions is also problematic. In this language, in opposition to what happens in English, comparative connectors and prepositions do not exhibit the same case properties: while prepositions assign oblique case (cf. (34a)), comparative connectors do not seem to have any specific case to assign, as attested by the impossibility of oblique case in (34b). On the contrary, they may connect phrases presenting other case assignors, as shown in (34c), where the oblique complements of *gostar* 'to like' are compared.

(34) a. Eles gostam de mim.
They love of me. oblique
'They love me.'
b. *O João visita mais a Ana do que mim.
The João visits more the Ana of.the that me.oblique
'João visits more often Ana than me.'

c. Eles gostam mais da Ana do que de mim.
They love more of the Ana of.the that of me.oblique
'They love more Ana than me.'

A third difficulty is raised by Chomsky's and Donati's analyses of Comparatives as wh-clauses similar to free relatives. Though attractive at a first glance, due to the fact that EP also has wh-constituents with the form *o que* and *como*, as shown in (35), this proposal faces serious problems.

(35) a. Falei do que me lembrava.
Talked about.the.3sg.masc that I.acc remembered
'I talked about what I remembered'
b. Surpreendeu-nos o modo como ela nos cumprimentou.
Surprised-us the way how she us greeted
'It surprised us the way how she greet us.

In fact, there is no evidence that in current EP the comparative connectors *o que* and *como* should be analysed as wh-constituents, since they may co-occur with true relative constituents in a single clause in examples like (36b) and (37b), which constitute comparative sentences alternatives to (36a) and (37a).

(36) a. O euro é mais valioso do que eu pensava que era.
The euro is more valuable of.the that I thought that was
'The euro is more valuable than I thought it was.'
b. (?) O euro é mais valioso do que [o que / o quanto] eu pensava que era.
The euro is more valuable of.the that [the what / the how.much] I thought that was
'The euro is more valuable than what I thought it was.'

(37) a. Os críticos louvaram tanto o quadro como o pintor que o criou.
The critics praised so.much the painting as the painter who it created.
'The critics praised as much the painting as the painter who has created it.'
b. Os críticos louvaram tanto o quadro como quem o pintou.
The critics praised so.much the painting as who it painted
'The critics praised as much the painting as who painted it.'

This co-occurrence is impossible with true relative clauses, as shown in (38c):

(38) a. Eu conheço o autor de *quem* esse editor publicou esse livro.
'I know the author of whom that editor published that book.'
b. Eu conheço *quem* publicou esse livro.
'I know who published that book.'
c. *Eu conheço quem de quem publicou esse livro.
'I know who of whom published that book.'

Moreover, the comparative connector *do que* 'than' is an idiom presenting the invariant definite article, *o* 'the', in its default form, i.e., 3rd person, masculine, singular,[51] while the corresponding forms of the definite article inside the relative wh-constituents agree with its antecedent in number and gender, as exemplified in (39) vs. (40):

(39) a. A Maria gosta mais das maçãs verdes do que das que são vermelhas.
The Maria likes more of.the.3.fem.pl apples green of.the.3masc.sg that of.the.3.fem.pl that are red.
'Maria likes more the green apples than the red ones.'
b. *A Maria gosta mais das maçãs verdes das que são vermelhas.
The Maria likes more of.the.3.fem.pl apples green of.the.3.fem.pl that are red
'Maria likes more the green apples than those which are red.'

(40) a. Falei do que me lembrava.
Spoke about. the.3.masc.sg that myself remembered
'I spoke about what I remembered.'
b. Quando me perguntaram que livros tinha lido ultimamente, falei dos que me lembrava.
When me ask which books had read lately, spoke about.the.3.masc.pl that myself remembered
'When they asked me which books I had read lately, I spoke about those I could remember.'
c. Maçãs, gosto das que são verdes.
Apples, like of.the.3.fem.pl that are green
'As for apples, I like those which are green.'

Finally, the analysis of Comparatives as free relatives is unable to explain the availability of Gapping in Comparatives and its exclusion from free relatives, as well as from headed relatives, respectively illustrated in (41) and (42):

[51] The form *(d)o que* is apparently formed by the pronoun *o*, followed by a relative clause initiated by *que*; nevertheless, the arguments already presented against a close connection between comparatives and relative clauses allow us to think that *(d)o que* is a fixed form.

(41) a. O João lê tantos contos aos filhos como a Ana [-] aos alunos.
The João reads so.many short.stories to.the children as the Ana [-] to.the students
'João reads as many short stories to his children as Ana to his students.'
b. A Ana come menos gelados num mês do que a Maria [-] num dia.
The Ana eats less ice.creams in.a month of.the that the Maria [-] in a day
'Ana eats less ice creams in a month than Maria in a single day.'
c. O Pedro é tão alto como o pai [-] gordo.
The Pedro is so tall as the father [-] fat.
'Pedro is as tall as his father fat.'

(42) a. *O João lê contos aos filhos e admira quem [-] aos alunos.
The João reads short.stories to.the children and admires who [-] to.the students
'João reads short stories to his children and admires who to the students.'
b. *A Ana come dez gelados num mês e tem uma amiga que [-] num dia.
The Ana eats ten ice.creams in a month and has a friend that [-] in a day
'Ana eats ten ice creams in a month and she has a friend that in a single day.'

In sum, in EP the comparative connectors are not complementizers nor prepositions and the comparative constituent is not intrinsically a free relative.

3. Comparatives as coordinate structures in EP

In addition to the arguments previously reviewed showing that Comparatives in EP do not behave like subordinate clauses, in particular as free relatives, there is a number of properties which closely relate Comparatives to coordinate structures.

3.1. Arguments for a coordination analysis of comparatives in EP

Some authors have shown that canonical comparative constructions behave like coordinate structures with respect to a considerable amount of phenomena in English as well as in other Germanic and Romance Languages – see, for

instance, Napoli (1983) for English, Lechner (1999, 2001) for English and German, and Sáez del Álamo (1999) for some cases of comparatives in Spanish.

In European Portuguese the same similarities hold. So, the comparative connectors behave like conjunctions in being able to connect not only sentences but also phrasal constituents, as in (43a) and (43b).[52]

(43) a. Ela correu menos do que cinco quilómetros.
She ran less of.the that five kilometres
'She ran less than five kilometres.'
b. Há mais dicionários do que enciclopédias nesta biblioteca.
There.is more dictionaries of.the that encyclopedias in this library
There are more dictionaries than encyclopaedias in this library.'

As mentioned in Hankamer (1973) and Pinkam (1985), phrasal comparatives differ from sentential ones in not always having a sentential counterpart and allowing the whole compared structure to be moved as an autonomous constituent. These properties are illustrated in (44a) and (44b) for the examples above.

(44) a. *Ela correu menos do que correu cinco quilómetros.
She ran less of.the that ran five kilometres
'She ran less than she ran five kilometres.'
b. Quantos mais dicionários do que enciclopédias há nesta biblioteca?
How.many more dictionaries of.the that encyclopaedias are.there in.this library
'How many more dictionaries than encyclopaedias are there in this library?'

Thus, as expected, the well-formedness of (44b) contrasts with the ill--formedness of (45b), since in the latter only fragments of the compared sentence have been extracted and not the whole compared constituent:

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[52] Recall some cases of phrasal coordination:
(i) O Pedro e a Maria sairam.
The Pedro and the Maria left
'Pedro and Maria have left'
(ii) Ele comprou não só um livro mas também uma caneta.
'He bought not only a book but also a pen.'

(45) a. Há mais dicionários nesta biblioteca do que há enciclopédias na biblioteca central.
There.is more dictionaries in this library of.the that there.is encyclopaedias in the library central.
'There are more dictionaries in this library than there are encyclopaedias in the main library.'

b.. *Quantos [mais dicionários]$_i$ do que [enciclopédias]$_j$ há t_i nesta biblioteca há t_j na biblioteca central?
How.many more dictionaries of.the that encyclopaedias is.there t in.this library is there t in.the library central?
'How many more dictionaries than are there in this library than are there in the main library?'

Assuming, as usual, that conjunctions may coordinate both sentences and phrasal constituents while complementizers in subordinate structures only select sentences, the examples just presented constitute a clear argument for analysing comparative connectors as a special case of conjunctions in EP.

The sentences below illustrate a second property shared by canonical comparatives and coordinate structures: they both obey the Coordinate Structure Constraint (cf. (46)),[53] the only exceptions allowed being those of Across--the-Board extraction (cf. (47)):[54]

(46) a. O Luís é mais inteligente do que o João é trabalhador.
The Luís is more intelligent of.the that the João is hard.worker
'Luís is more intelligent than João is hard worker.'

b. *Do que o João é trabalhador, o Luís é mais inteligente.
Of.the that the João is hard.worker, the Luís is more intelligent.
'Than João is hard worker, Luís is more intelligent.'

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[53] As noted in Ross (1967), there are coordinate sentences that violate the Coordinate Structure Constraint. These cases are often related with asymmetric coordination, as reported in Culicover & Jackendoff (1997).

[54] The corresponding coordinate sentences are specified below:

(i) O Luís é inteligente e o João é trabalhador.
The Luís is intelligent and the João is hard worker
'Luís is intelligent and João is hard worker.'

(ii) *E o João é trabalhador, o Luís é inteligente.
And the João is hard worker, the Luís is intelligent
'And João is hard worker, Luís is intelligent.'

(iii) *O que é que o Luís é e o João é trabalhador?
The what is that the Luís is and the João is hard worker?
'What is Luís and João is hard worker?'

(iv) O que é que o Luís é e o João também é?
The what is that the Luís is and the João too is
'What is Luís and João is too?'

c. *O que$_i$ é que o Luís é mais t$_i$ do que o João é trabalhador?
The what is that the Luís is more t of.the that the João is hard.worker
'What is Luís more than João is hard worker?

(47) O que$_i$ é que o Luís é mais t$_i$ do que o João é t$_i$?
The what is that the Luís is more t of.the that the João is t$_i$
'What is Luís more than João is?'

A third property correlates Comparatives and Coordination: they allow for the occurrence of Gapping, an elliptical construction which is banned from subordinate sentences, even when these ones do not include island domains.[55] So, (48a) contrasts with (48b) in acceptability:[56]

(48) a. O Pedro lê mais contos aos alunos do que a Maria aos filhos.
The Pedro reads more short.stories to.the students of.the that the Maria to.the children
'Pedro reads more short stories to his students than Maria to her children.'

b. *O Pedro lê mais contos aos alunos do que a Ana diz que a Maria aos filhos.
The Pedro reads more short.stories to.the students of.the that the Ana says that the Maria to.the children
'Pedro reads more short stories to his students than Ana says that Maria to her children.'

Thus, the data analysed in this section have shown that there is evidence for considering Comparatives constructions in EP as a particular case of co-ordination.[57]

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[55] The following sentence presenting coordination parallels the one involving Comparative:
(i) O Pedro lê contos aos alunos e a Maria [-] aos filhos.
The Pedro reads short.stories to.the students and the Maria [-] to.the children
'Pedro reads short stories to his students and Maria to her children.'

[56] The exclusion of Gapping from subordination seems to be a property of this construction across languages. So, for instance, Sag 1980, Lechner 2001 show that it applies to English, Lechner 1999, presents evidence against Gapping in embedding contexts in German.

[57] Moreover comparative sentences share with coordination the property of presenting apparent reversability of their members in certain contexts (see (i) and (ii)):
(i) a. O Pedro é alto e a Maria é baixa.
The Pedro is tall and the Maria is small
'Pedro is tall and Maria is small.'

3.2. Comparatives in EP vs. other Romance Languages

A closer look to other languages suggests that the status of Comparatives as coordinate or subordinate structures is not a completely stable property of these constructions neither across languages nor within the same language. In particular, Comparatives in Romance languages vary with respect to the presence or absence of overt wh-morphology.

Thus, in Italian, sentential comparatives involve free relative, as attested in Donati 1997 (cf. (49)), while in Spanish, a Romance language closely related to Portuguese, free relative Comparatives, like those in (50), coexist with those in (51), which present the behaviour of coordinate structures:

(49) Maria ha fatto più di quanto mi sarei aspettato che facesse.
Maria has made more than what me would expect that do
'Maria made more than what I would expect that she would do.'
(Donati 1997: 149)

(50) a. Compré más libros / peras de los / las que compraste tú.
Bought.1.sg more books / pears of the.3.mas.pl / the.3.fem.pl which bought you
'I bought more books than you bought'

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b. A Maria é baixa e o Pedro é alto.
The Maria is small and the Pedro is tall
'Maria is small and Pedro is tall.'

(ii) a. O Pedro é tão alto como a Maria é baixa.
The Pedro is so tall as the Maria is small
'Pedro is as tall as Maria is small.'
b. A Maria é tão baixa como o Pedro é alto.
The Maria is so small as the Pedro is tall
'Maria is as small as Pedro is tall.'

However the reversibility of the two members in copulative coordination and in comparatives is only apparent:

(iii) a. Alguns civis morreram durante o ataque e os soldados enterraram-nos.
'Some civilians died during the attack and the soldiers buried them.'
b. # Os soldados enterraram-nos e alguns civis morreram durante o ataque.
'The soldiers buried them and some civilians died during the attack.'

(iv) a. O João é menos simpático do que a Maria é trabalhadora.
'John is less nice than Mary is diligent.'
b. A Maria é mais trabalhadora do que o João é simpático.
'Mary is more diligent than John is nice.'

In (iii) the examples (a) and (b) do not obey the same temporal sequence of the events, which constitutes one of the factors of the marginality of (iii. b) In (iv) the alleged reversibility is accompanied with the change of the degree word (*less / more*).

b. Compré más libros / peras de
cuantos / cuantas hayas podido comprar tú.
Bought.1.sg more books / pears of
how.many.3.mas.pl /how.many. 3.fem.pl. have been.able buy you
I have bought as many books / pears as you have been able to buy.'
(cf. Sáez del Álamo (1999:1133))

(51) a. Juan compró más libros que discos (compró) Luis.
Juan bought more books that discs (bought) Luis
'Juan bought more books than Luis (bought) discs.'
b. Juan comprou menos libros que esos.
Juan bought less books that those
'Juan bought less books than those.'
(cf. Sáez del Álamo (1999:1139))

In (49) the connector *di* is followed by the free relative headed by *quanto/quanti*. Similarly, in (50), the prepositional conector *de* introduces a free relative headed by the wh-expressions *lo(s)/la(s)+que* or *cuanto(s)/cuanta(s)*, which agree in gender and number with their antecedents.[58] In contrast, in (51), the invariable form *que* connects two constituents, which may be sentential, as in (51a), or phrasal, as in (51b). Thus, while in (49) and (50) subordination seems to be at work, in (51) Comparatives display the properties of coordination.

The contrast between EP and these languages, namely Spanish, suggests that the status of Comparatives as coordinate sentences in EP is the result of a diachronic process which has reanalysed the elements which compose the comparative connectors *como* 'as' and *do que* 'than' as coordinate conjunctions.[59] This is why, in this language, these connectors can co-occur with true

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[58] As suggested in Brito 1991 for Portuguese, the constructions in (50a) contain false free relatives because *os, as* may be part of the "antecedent" of the relative clause; in these circumstances, contrary to Donati 1997 analysis, a DP level may be not missing in this sort of "free" relatives.

[59] The similarity between comparatives and superlatives in EP (cf. (i) and (ii)) suggests that the particle *de* in Comparatives has been a true preposition, whose value was that of partition: it indicated that a part of a whole had been extracted (cf., among others, Lopes 1972, cap. VII, 4.):

(i) Estes homens são mais fortes do que aqueles.
These men are more strong of.the that those
'These men are stronger than those.'
(ii) Ele é o rapaz mais forte da escola.
He is the boy more strong of.the school
'He is the strongest boy in the school.'

As for *que* in the expression *do que* 'than', although related with the Latin system of relative pronouns, it seems to have been directly derived from the item *que* that replaced *quam* in Latin when it introduced a full clause (Meyer-Lübke 1890-99).

relative sentences, either headed or free relatives, as shown in (52a) and (52b):[60]

(52) a. Ela come mais gelados num mês do que os que tu comes num ano.
She eats more ice.creams in.a month of.the that the what you eat in.a year
'She eats more ice creams in a month than what you eat in a year.'
b. Ela come mais gelados num mês do que aqueles que tu comes num ano.
She eats more ice.creams in.a month of.the that those that you eat in.a year.
´She eats more ice creams in a month than the number of ice creams that you eat in a year'
c. Ela não é tão alta como o que nós gostaríamos que ela fosse.
She not is so tall as the what we would.like that she would be.
'She is not as tall as what we would like her to be.'

In these examples the coordinate structure of Comparatives coexists with a wh-constituent, what means that inside the second member of the Comparative a subordinated clause may exist. As expected, Gapping is not allowed in these contexts:

(53) a. *Ela come mais gelados num mês do que os que tu [-] num ano.
She eats more ice.creams in.a month of.the that the.what you [-] in.a year
'She eats more ice creams in a month than what you in a year.'
b. *Ela não é tão alta como aquilo que o irmão [-] magro.
She not is so tall as that that the brother [-] thin
'She is not as tall as what her brother thin'

In sum, there is empirical evidence for analysing Comparative constructions in EP as coordinate structures. The contrasts between Italian and Spanish on one side, and EP on the other, seem to show that the consistent coordinate nature of this construction in the latter language is the consequence of a diachronic evolution which has reanalysed the subordinating expression as a fixed

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Alternatively it may have derived from the form *que* which replaced *quod* in the general system of subordination in vulgar Latin (Herman 1962).

[60] Notice that the example (52a) is felt as slightly marginal in the standard language, which prefers either (52b) or the version without free relative, as in (i):
(i) Ela come mais gelados num mês do que tu comes num ano.
She eats more ice.creams in.a month of.the that you eat in.a year
'She eats more ice creams in a month than you eat in a year.

coordinate connector. However, even in this case, the coordinate structure in Comparatives may include as a second term of comparison a headed or a free relative clause.

4. Canonical Comparatives in EP as coordinate structures

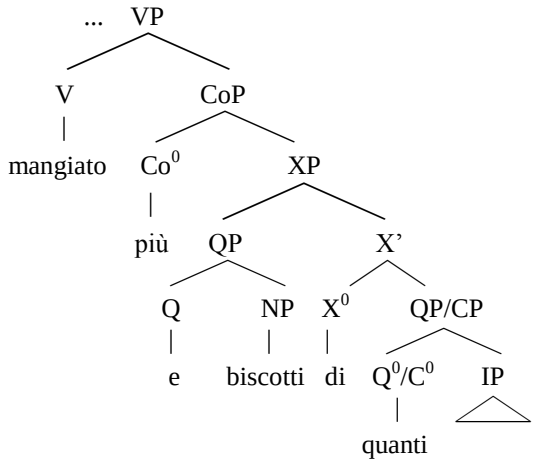
4.1. The current proposals

Considering their hybrid behaviour, Donati 1997 and Lechner 1999, 2001 proposed mixed approaches to Comparatives. We will briefly revue their analyses, paying special attention to the coordinate configurations they propose, since, as shown in the two previous sections, there is no evidence for the intrinsic subordinate nature of these constructions in contemporary EP.

Restricting her study to comparatives involving full sentences as a second term of comparison, Donati 1997 tries to combine the subordinate and the coordinate analyses. So, while considering that the second term of comparison is a (quantificational) free relative, Donati claims that the degree word in the first term of comparison is a two place predicate which selects as its arguments the two terms of comparison, as in (54).

(54) a. Maria ha mangiato più biscotti di quanti ne ha mangiati Joe.
Maria has eaten more cookies than what of.them has eaten Joe
'Maria ate more cookies than Joe ate.'

b.



(cf. Donati 1997:164)

The comparative structure is headed by the preposition *di*, a dummy conjunction-like element, whose function is to establish asymmetric order between the two arguments of *più/more* (Donati 1997:164). Donati's main argument in favour of this analysis is that it captures the selection of the second term of

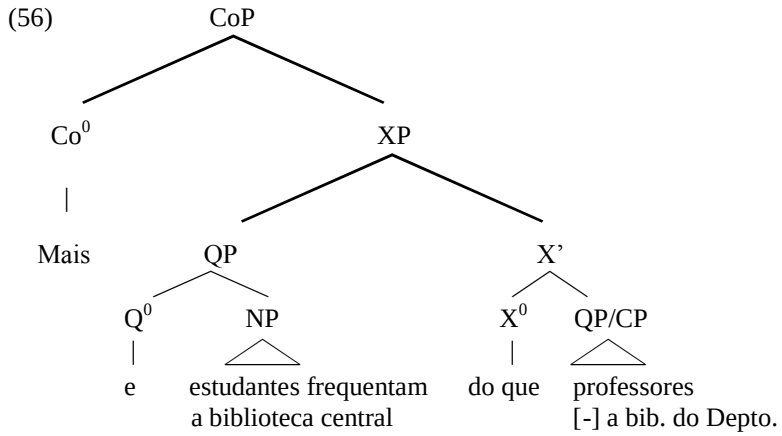
comparison by the degree word without positing an operation of Extraposition, since the comparative clause occurs in its original site.

In spite of its apparent adequacy, Donati's proposal presents some drawbacks. Firstly, it is not able to capture the correlation between the degree word and the compared clause in terms of subordination — in fact, the degree word does not merge with this clause but with the whole coordinate structure headed by *di*. Secondly, this analysis is unable to adequately deal with sentences like (55), where the compared terms are discontinuous.

(55) Mais estudantes frequentam a biblioteca central do que professores [-] a biblioteca do Departamento.
More students frequent the library central of.the that professors [-] the library of.the Department
'More students visit the main library than teachers the library of the Department.'

In fact, Donati's proposal would derive the representation (56), which presents an unnatural parsing of the sentence (55), since it assumes that the sequence *estudantes frequentam a biblioteca central* 'students visit the main library' is a single constituent, namely, the NP under the scope of the null quantifier in the first term of comparison.

(56)



As a consequence, this representation is unable to capture the fact that the entire compared structure in (55) counts as a complex sentence, rather than a single quantified nominal phrase.[61]

[61] Additionally, Donati's proposal would leave unaccounted for the occurrence of Gapping in this sentence, since it analyses the second term of comparison as a CP (see section 2 of this paper).

Lechner´s (1999, 2001) approach to Comparatives does not suffer from these problems. Still, it is not truly convincing. In fact, starting from a derivation where the comparative phrase is selected as a complement of the Degree morpheme (cf. Lechner 1999), he derives the configuration of a coordinate structure through Extraposition, adjoining the compared constituent at the right hand side of the sentence (Lechner 1999, 2001), as illustrated in (57):

(57) $[_{IP}\,[_{VP}\,[_{DegP}\,AP\,[_{Deg'}\,Deg^{o}\,XP_{than/as}\,]\,]\,]\,]$ => $[\,IP\,[_{Conj}\,than/as]\,[\,IP\,]]$

Leaving aside the fact that this proposal is grounded on Extraposition (for some comments, see section 2.1. of this paper), this analysis presents the problem of the ambiguous status of the comparative connector, both characterised as a subordinator and a coordinator, when it occurs inside or outside the DegP, respectively. Given that the categorial nature of the syntactic projections is usually determined by the intrinsic features of the items selected from the Lexicon, it is doubtful that these inherent features change during the derivation of a sentence under the effect of Extraposition.[62]

Besides, accepting the Minimalist Program (cf. Chomsky 1995, 2000), the use of Extraposition in order to obtain coordination configurations is an unmotivated procedure. In fact, Extraposition has been classically characterised as a movement transformation; in minimalist terms, this means that it involves the operations of Merge and Agree. Since coordination may be derived only by Merge, the less economical derivation, making use of movement, will be precluded.

In sum, current studies on Comparatives have tried to combine the central idea of the subordinate proposals (that the degree element selects for the comparative phrase) and the coordinate analyses. However, in doing so, they face with empirical and conceptual problems. So, we will try to propose an alternative to them, assuming exclusively the coordinate approach.

4.2. The adopted analysis

Accepting that Comparative constructions in EP are basically coordinate structures, we can account for the dependency between the degree word and the compared constituent, assuming that comparatives are a specific case of

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[62] A reviewer claims that this criticism against the categorial change of the connector in Comparatives in the course of the derivation is not valid, since it also occurs in clitics, which may be either X° or XP. We consider, however, that these two situations are not similar. According to the Bare Phrase hypothesis, we assume that the functional interpretation of any category as a minimal or a maximal projection — be it a Determiner_Clitic or a Verb — is compatible with the preservation of its intrinsic categorial status, e.g., in the case of Verbs, its inherent feature specification as a [+N,-V] element. What we claim is that it is doubtful that Extraposition may change the inherent feature specification of the comparative connector, converting a Complementizer or a Preposition into a Conjunction in a derivational step of sentence computation.

correlative coordination. In doing so, we are extending an approach that has been already proposed for some particular types of comparatives (see Culicover & Jackendoff 1999 and Bianchi & Zamparelli 2001).

The contrasts between (58) and (59) seem to corroborate this hypothesis: they show that the comparative connectors not only require the presence of the degree element, but also change in accordance with the value it exhibits – *mais* 'more' and *menos* 'less' determine the occurrence of *(do) que* 'than', while *tão* 'as much' and *tanto(s)* 'as many' require the presence of *como* 'as'.

(58) a. O Pedro é mais / menos aplicado do que o irmão.
The Pedro is more /less diligent of.the that the brother
'Pedro is more/less diligent than his brother.'
b. O Pedro é tão alto como o pai é gordo.
The Pedro is so tall as the father is fat
'Pedro is as tall as his father is fat.'
c. Ela tem menos livros do que os que devia ter.
She has less books of.the thatthe.3.pl that should have
'She has less books than (those) she should have.'
d. Não tenho tantos dicionários como gostaria de ter.
Not have as.many dictionaries as would.like to have
'I have not as many dictionaries as I would like to have.'

(59) a. *O Pedro é aplicado do que o irmão.
The Pedro is diligent of.the that the brother
'Pedro is diligent than his brother.'
b. *O Pedro é *mais* aplicado *como* o irmão.
The Peter is more diligent as the brother
'Peter is more diligent as his brother.'
c. *O Pedro é *tão* alto *do que* o pai é gordo.
The Peter is as tall of.the that the father is fat
'Pedro is as tall than his father is fat.'
d. *Ela tem *menos* livros c*omo* os que devia ter.
She has less books as the. 3pl that should have
'She has less books as those she should have'
e. *Não tenho *tantos* dicionários *do que* gostaria de ter.
Not have as.many dictionaries of.the that would.like to have
'I have not as many dictionaries than I would like to have.'

The same kind of contrasts occur in the core cases of correlative coordination, as exemplified in (60) and (61):

(60) a. Tanto o Pedro como a Ana gostam desses livros.
As the Pedro as the Ana like of.these books
'Both Pedro and Ana like these books.'

b. Não só o João [mas também / como] a Ana leram esse artigo.
Not only the João but also / as the Ana read that article
'Not only João but also Ana read that article.'
c. Nem o João nem a Maria nos visitam frequentemente.
Neither the João nor the Maria us visit frequently
'Neither João nor Mary visit us frequently.'
d. Eles ofereceram-lhe ou livros ou chocolates.
They offered-them or books or chocolates
'They offered them either books or chocolates.'

(61) a. *Tanto o Pedro mas também a Ana gostam desses livros.
As the Pedro but also the Ana like of.these books
'Both Pedro and Ana like these books.'
b. *Nem o João ou a Maria nos visitam frequentemente.
Neither the João or the Maria us visit frequently
'Neither João or Mary visit us frequently.'

Thus, within the coordinate approach it is possible to capture the dependence between the first term of comparison and the second one by assuming that the degree element and the comparative connector are correlatives.[63]

Elaborating on the analysis of coordinate structures proposed in Kayne 1994 and Johannensen 1998, among others,[64] we will assume the representation (62b) for the Comparative sentence in (55), repeated in (62a). We admit that the nominal expression in the first conjunct is a DegP whose head selects a non--overt QP.[65] At LF Q incorporates into Deg by a head-to-head movement.[66]

(62) a. Mais estudantes frequentam a biblioteca central do que professores [-] a biblioteca do Departamento.
More students frequent the library central of.the that professors [-] the library of.the Department
'More students visit the main library than teachers the library of the Department.'

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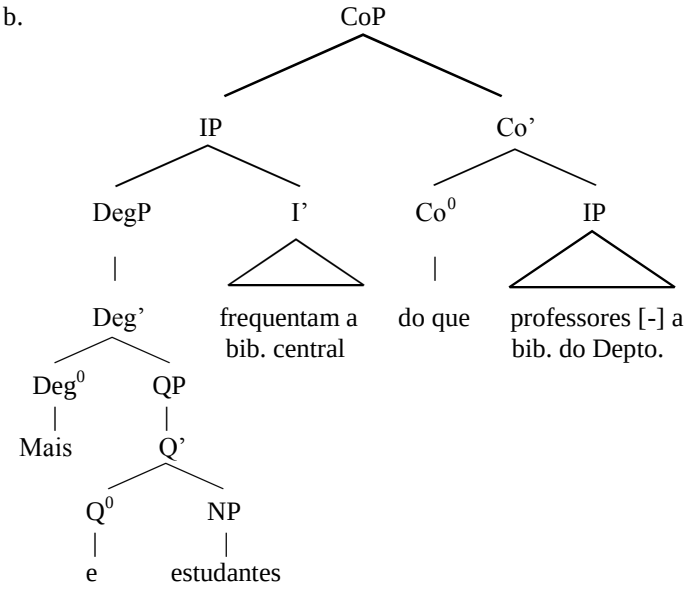
[63] A potential problem for this analysis is the fact that sometimes there is no independent degree word, but instead an affix (cf. (i)):
(i) John is taller than Mary.
Notice, however, that the same problem faces up in the subordination approach. In both cases we should have to admit that affixes, like full words, determine the presence of conjunctions or complementizers, given the kind of features they present.

[64] For Portuguese, see Matos 2000.

[65] Q as a functional head selects NP, the lexical part of the whole category (see Abney 1987 for English, Brito 1993 for Portuguese).

[66] In (62) the result of this incorporation is *mais* ('more') but in *tantos* ('so many') the degree value and the quantificational value are explicit (on the discussion of the nature and the landing site of this movement see below).

b.



In (62b), although the comparison focuses the nominal constituent in subject position, the comparative structure involves two compared sentences. So, the comparative connector, *do que* 'than', which heads the coordinate structure, selects these two sentences as specifier and complement, respectively.

However, despite their similarity with canonical correlative coordination, Comparatives differ from it by the fact that the degree element does not always strictly delimit the beginning of the comparative construction in overt syntax. Thus while in correlative coordination the coordinate structure starting with the first correlative may move as a whole (see (63)), in Comparatives, the movement of the expression initiated with the first correlative element does not always originates grammatical sentences (see (64b) and (64d)):

(63) a. Ela ofereceu livros não só/tanto às crianças mas também / como aos adultos.
She offered books not only/as.much to.the children but also/ as to.the grown-up
'She offered books not only to the children but also to the grown--up.'

b. Não só às crianças mas também aos adultos, ela ofereceu livros.
Not only to.the children but also to.the grown-up, she offered books
'Not only to the children but also to the grown up, she offered books.'

c. Tanto às crianças como aos adultos, ela ofereceu livros.
As.much to.the children as to.the grown-up, she offered books

'Not only to the children but also to the grown up, she offered books.'

(64) a. Esta mesa é tão larga como essa secretária é comprida.
This table is as wide as that desk is long
b. *Tão larga como essa secretária é comprida, esta mesa é.
As wide as that desk is long, this table is
c. A Maria gosta mais da mãe do que o Mário detesta a sogra.
The Maria loves more of.the mother of.the that the Mário hates the mother-in-law.
'Maria loves more her mother than Mário hates his mother-in-law.'
d. *Mais da mãe do que o Mário detesta a sogra, a Maria gosta.
More of.the mother of.the that the Mário hates the mother-in-law, the Maria loves
'As much her mother as Mário hates his mother-in-law, Maria loves'

Since the sequences following the degree word in (64b) and (64d) do not form a constituent, their movement produces ill-formed sentences. Still, movement of the compared expressions is allowed when these ones integrate a constituent, as in (65b):

(65) a. Ela só envia menos e-mails do que cartas no Natal.
She only sends less e-mails of.the that letters at.the Christmas
'She only sends less e-mails than letters at Christmas time.'
b. Menos e-mails do que cartas, ela só envia no Natal.
Less e-mails of.the that letters, she only sends at.the Christmas
'Less e-mails than letters, she sends just at Christmas time.'

These data suggest that the different behaviour of correlatives in coordinate structures and in Comparatives is partially a consequence of the quantifier-like nature of the degree word, which allows it to have scope at LF over constituents that it not c-commands in overt syntax. In fact, in (64), the second term of comparison defines the whole sentence as the relevant domain for comparison; so, the degree word in the first term of comparison, due to its quantifier status, assumes at LF its own sentence, rather than just the oblique complement of the verb, as its scope domain. On the contrary, in (65), the second term of comparison fixes the direct object of the verb as a potential compared element; thus, the scope of the first term of comparison is restricted to the nominal complement of the verb, i.e., the phrase selected by the degree word.

In sum, in this section, we have claimed that the relation between the degree marker and the compared expression may be captured in terms of correlative

coordination. We imputed the specific behaviour of the comparative degree marker, which does not always overtly delimit the beginning of the compared structure, to its quantifier-like nature, which allows it to take scope over a larger domain at LF.

5. Islands effects in Comparative and Subcomparative Deletion

The characterisation of Comparatives as a specific case of coordination, not intrinsically involving as second conjunct a subordinate constituent, faces the problem of accounting for the apparent sensitivity of these structures to island domains in contexts of the so-called Comparative Deletion and Subdeletion.

In opposition to Romance languages like French, Italian and Spanish (see section 2.), EP presents both Comparative Deletion (see (66a) and (67a)) and Subdeletion (see (66b) and (67b)):

(66) a. O euro é mais valioso do que eu pensava que era [-].
The euro is more valuable of.the that I thought that was [-]
'The euro is more valuable than I thought it was.'
b. O António tem menos amigos do que eles têm [-].
The António has less friends of.the that they have [-]
'António has less friends than they have.'

(67) a. A Ana dá mais Muito Bons do que a Paula dá [[-] Bons].
The Ana gives more Very Good of.the that the Paula gives [-] Good
'Ana gives more As than Paula gives Bs.'
b. O João tem tantos amigos como a Maria tem [[-] familiares].
The João has so.many friends as the Maria has [-] relatives
'João has as many friends as Maria has relatives.'

The examples bellow show that, although in EP Comparative Deletion may exhibit apparent long distance movement (cf. (68a)), this movement is precluded from island contexts (see (68b), representative of the DP Complex Constraint, and (68c), which illustrates the Wh-Constraint).

(68) a. O euro é mais valioso do que eu pensava que era [-].
The euro is more valuable of.the that I thought that was [-]
'The euro is more valuable than I thought it was.'
b. *O euro é mais valioso do que eu li *a notícia* que dizia que era [-].
The euro is more valuable of.the that I read the news that told that was [-]
'The euro is more valuable than I read the news that had told it was.'

c. *O euro é mais valioso do que eu ignoro *quem* afirmou que era [-].
The euro is more valuable of.the that I ignore who claimed that was [-]
'The euro is more valuable than I ignore who claimed it was.'

In turn, as remarked by Bresnan 1973, Chomsky 1977, Pinkam 1985 and Corver 1993, the Subdeletion cases seem to present a more restricted behaviour than Comparative Deletion, since their occurrence in long distance non-island domains produces degraded results, as exemplified in (69a).

(69) a. ?A Ana dá mais Muito Bons do que eu penso que a Maria dá [[-] Bons].
The Ana gives more Very Good of.the that I think that the Maria gives [[-] Good]
'Ana gives more As than I think that Paula gives Bs.'
b. *A Ana dá mais Muito Bons do que eu ouvi o boato de que a Maria dá [[-] Bons].
The Ana gives more Very Good of.the that I heard the rumour of that the Maria gives [[-] Good].
'Ana gives more As than I heard the rumour that Maria gives Bs.'
c. *A Ana dá mais Muito Bons do que eu me pergunto quem dá [[-] Bons].
The Ana gives more Very Good of.the that I myself ask who gives [[-] Good].
'Ana gives more As than I wonder who gives Bs.'

Taking into consideration that some languages do not present Comparative Deletion, as well as the fact that in EP the second member of comparison does not necessarily involve a wh-clause (cf. sections 2 and 3), we are impelled to admit not only that Comparative Deletion and Subdeletion must be kept apart, as suggested in Chomsky 1977 and assumed in Pinkam 1985 and Corver 1993, but also that these constructions display cases of A-bar-movement distinct from wh-movement.

Let us first concentrate on Subdeletion. Following Bresnan 1973, 1975, 1976, 1977, Pinkam 1985 and Cover 1993, we will assume that these structures involve a null quantifier in the second term of comparison, as exemplified in the simplified representation proposed in (70b) for (70a).

(70) a. A Maria é tão trabalhadora como a Ana é inteligente.
The Maria is so hard.worker as the Ana is intelligent.
'Maria is as hard worker as Ana is intelligent.'
b. [A Maria é tão trabalhadora [$_{\text{Conj}}$ como] [a Ana é [$_{\text{QP}}$ [$_{\text{Q}^{\circ}}$ −] [$_{\text{AP}}$ inteligente]]

Elaborating on Pinkam 1985 and Cover 1993, we claim that the apparent sensitivity of these structures to island domains is a consequence of the movement of this quantifier for scope purposes at LF.[67] An operator-variable chain is formed, headed by the null Quantifier. Accepting, with Donati 1997, that this quantifier moves like a head – as suggested by the fact that left-branch extraction effects do not occur –, we admit that it moves head-to-head onto the topmost head position of the compared clause leaving a copy in its original place.[68] Considering the head status of the comparative Conjunction, we will presume that the raised quantifier, after adjoining to Iº, in accordance to the head-to-head movement, will adjoin to the comparative conector, as illustrated in the simplified representation in (71b), for the sentence (71a).[69]

(71) a. A Ana dá tantos Muito Bons como a Paula dá Bons.
The Ana gives as.many Very Good as the Paula gives Good
'Ana gives as many As as Paula gives Bs.'

b. [$_{CoP}$ A Ana dá tantos MBs [$_{Co^o}$ [$_{Q^o}$ –] [$_{Co^o}$ como]] [$_{IP}$ a Paula dá [[$_{Q^o}$ –]Bs]]].

Given that Comparative structures are sensitive to the Coordinate Structure Constraint, the well-formedness of examples like (71) suggest that Q-raising in this comparatives applies Across-the-Board from both terms of comparison,

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[67] In spite of the proposals to eliminate Quantifier Raising (QR) as an independent device and to reduce it to A-movement (Hornstein 1995, 1999), Scrambling (Johnson 2000) or feature checking involving A or A'-movement (Kitahara 1996), there are several studies that try to accommodate QR within the Minimalist Program – e.g., Chomsky 1995, 2000, Fox 1995, Beghelli and Stowell 1997, Kennedy 1997, Bruening 2001.

[68] We have adopted a position close to the classical analyses of comparatives that conceive the comparative operator in Subdeletion as having scope over the whole compared sentence. See Pinkam 1985, Corver 1993, Kennedy 1997, Donati 1997.

[69] The current analysis shares some aspects of the proposals by Pinkam 1985 and Corver 1993. Although Pinkam adopts an interpretative approach, she posits a rule of Q-binding stating that the Quantifier phrase must be bound to the Comp position, which she argues to be headed by the comparative connectors *than* or *as*; this rule is subject to a condition stipulating that binding cannot take place over more than a ciclic node. In opposition, Corver 1993 assumes that the degree element, characterised as a Quantifier-like element, is subject to Quantifier Raising and moves ATB from both compared terms to adjoining to IP at LF.
With Pinkam 1985, we accept that the quantifiers in each term of comparison are distinct, given the fact that they may not present the same value; thus, we consider that the binding of the quantifier in the second term of comparison does not occur ATB. However, like Corver 1993, we adopt the QR analysis of these structures, assuming that they exhibit locality effects characteristic of movement.

involving the Degree quantified expression in the first term as well as the correlate quantified expression in the second one.[70]

The apparent sensitivity of this construction to island domains, or even the progressive decay of its acceptability in embedding domains comes as no surprise. In fact, as shown in Longobardi 1991, Quantifier raising may not operate over islands.[71] Moreover, as often assumed, the scope domain of Quantifiers is restricted to the minimal tensed domain where they occur, the Operator-variable chain they head being locally confined perhaps to phase domains.[72]

Turning now to Comparative Deletion, the fact that French, Italian and Spanish contrast with EP in requiring the presence of a clitic pronoun *ne, en*, related to quantifier extraction, instead of the null correlate of the Degree phrase, in the second term of comparison (compare (72) with the examples in (73) from Pinkam 1985, Donati 1997 and Sáez del Álamo 1999), suggests that this phenomenon in EP may be subsumed under the construction of Null Object.[73]

(72) A Maria compra mais livros do que tu compras [-].

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[70] The fact that virtually the entire sentence containing the overt degree/quantifed expression in the first term of comparison counts as the correlate of the second compared sentence (cf. section 4.2.) argues in favour of the movement of the complex formed by the incorporation of the degree word and the null quantifier. In (71) we have no direct evidence about the nature of the raised constituent. But, assuming with Chomsky 1995 that movement at LF only involves features, we are compelled to posit that at LF Q-raising in the first term of comparison targets the highest Iº node in the comparative structure, as illustrated in (i):

(i) [$_{CoP}$[$_{IP}$ A Ana [$_{I^o}$ [$_{Q^o}$tantos]dá] [$_{DegP/QP}$t MBs] [$_{Co'}$[$_{Co^o}$[$_{Q^o}$ e]como] a Paula dá [$_{Q^o}$ t]Bs]]].

[71] Note that the ungrammaticality of sentences like (69) presenting islands may not be explained in terms of violations of the Coordinate Structure Constraint, or otherwise, the sentences in (71) would also be marginal, contrary to fact. In fact the CSC just applies to cases of extraction out of a coordinate structure, what does not happens in these cases.

[72] Notice that Chomsky 1995:377 admits that QR adjoins features of Q to Tº or to the light verb head, which he hypothesises to have "optional affix features allowing them to host [quant]." These affix features will be chosen if Quantifier raising will lead to a different interpretation. Though suggesting that QR possibly applies when it has "an effect on the outcome", Chomsky 2000:108, 109, hesitates in considering QR as a non feature driven movement or as a movement triggered by Quantifier-features of some relevant projection. He also considers the possibility that QR involves pied--piping.

[73] As reported in Pinkam 1985: 18, the predicative clitic *le* 'it' is used as compared element in Comparative sentences involving copulative verbs:

(i) Jean est plus grand que je ne *(le) suis.
Jean is more tall than I not*(it) am.
'Jean is taller than I am.'

This is expected if we assume that the clitic in some way represents the head of the small clause, complement of the verb.

The Maria buys more books of.the that you buy
'Mary buys more books than you buy.'

(73) a. Ces jours-ci, il a plus d'argent qu'il n' *(en) avait.
These days, he has more of money than he not *(of it) had
'Nowadays, he has more money than he used to have.'
b. Ho comprato più libri di quanti *(*ne*) hai comprati tu.
Have bought more books of how.many *(not) have bought you
'I have bought more books than you have bought.'
c. *Juan compró más libros ayer que Luis vendió hoy.
'Juan bought more books yesterday than Luis sold today.'

The availability of Null Objects in EP is widely accepted (cf. Raposo 1986, 1999, Duarte 1987, Raposo 1998, Costa & Duarte (in press)).[74] Still, at first sight, the proposal of reducing Comparative Deletion in EP to Null Object encounters a difficulty: most of the early work on Null Objects in EP has restricted this construction to definite nominal expressions (cf. Raposo 1986, Duarte 1987). However, the gap in Comparative Deletion in EP does not seem to correspond to a definite nominal expression, rather it is the counterpart of the clitics *ne* and *en* which denote non-definite quantificational expressions (Pinkam 1985, Donati 1997).[75]

Yet, current research on Null Object has showed that this construction may cover different kinds of nominal expressions (see, for instance, Huang 1984, Rizzi 1986). In particular, these nominal expressions have been characterised either as a variable or a pronominal in European and in Brazilian Portuguese (see, among others, Raposo 1986, 1998, Farrell 1990, Kato 1993, Cyrino 1997, Kato & Raposo 2001, Costa & Duarte (in press)).

A second potential problem is raised by sentences like those in (74), which apparently argue against the possibility of restricting the null complement of the verb in Comparative Deletion to nominal expressions. In fact, it has been usually assumed that only the nominal direct object occurs in this construction (but see Costa & Duarte (in press)[76], who extend the null complement to other categories).

(74) a. O Pedro gosta tanto da irmã como o Paulo gosta [-]

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[74] Notice, however, that the occurrence of Null Object is more constrained in EP than in Brazilian Portuguese – see, among others, Farrell 1990, Kato 1993, Bianchi & Oliveira 1994, Cyrino 1997, Galves 2001.

[75] See Pinkam 1985: 5-16 for arguments in favour of the quantificational nature of *en* in Comparative Constructions, and evidence for distinguishing this instance of *en* from its specific correlate.

[76] These authors extend the Null Object construction to cases where the null complement of the verb is not nominal. Though attractive, we will not adopt this proposal in this work, since a more careful study would be required, which is out of the scope of this paper.

The Pedro loves as.much of.the sister as the Paulo loves [-]
'Pedro loves as much his sister as Paulo loves.'

b. Ela pôs menos livros na prateleira do que ele pôs [-].
She put less books on.the shelf of.the that he put [-]
'She put less books on the shelf than he put.'

c. A Maria viaja mais durante as férias do que a Ana viaja [-].
The Maria travels more during the vacation than.the that the Ana travels [-].
'Maria travels more during the vacation than Ana travels.'

In fact, in (74a) the null complement of the verb is a PP, in (74b) more than one complement of the verb is omitted and in (74c) the non-lexically realised element is an adjunct.

Still, even adopting the classical characterisation of Null Object as the nominal direct object of the main verb, these data do not challenge the hypothesis that Comparative Deletion involves this construction. In fact, we would like to suggest that the sentences in (74) above are not representative of Comparative Deletion, and, thus, are not analysable as an instance of Null Object. They rather illustrate VP ellipsis, an elliptical construction that may also occur in Comparative sentences. As originally remarked in Raposo 1986, there are cases of VP ellipsis in EP that involve the main verb.[77] Matos 1992 argues in favour of Raposo's claim, emphasising that EP is a language with generalised verb movement, where main verbs usually raise to Inflection and may leave the VP without any overt content. Matos also points out that VP ellipsis in EP requires lexical and structural parallelism between the verb that identifies the elliptical constituent and the verb in the antecedent sentence.[78] No such requirement constrains the occurrence of Null Object, as illustrated in (75), although Null Object may also arise in cases where verbal parallelism occurs (cf. (72) above).

(75) O João gosta [$_{PP}$ da sogra] mas o Pedro detesta [$_{DP}$-].
The João likes of.the mother-in-law but the Pedro hates [$_{DP}$-]
'João likes his mother-in-law but Pedro hates her.'

The contrast in acceptability between (75) and (76), where the verb selects a PP complement, suggests that in (74) VP ellipsis is at work. In fact, if (74) were

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[77] In English, where VP ellipsis is identified by auxiliary verbs or by the copula *be*, only in the latter case Comparative Deletion may be non-distinguishable from VP ellipsis in Comparatives (cf. (i) and (ii)):
(i) John loves Mary as much as Peter does.
(ii) John is taller than Mary is.

[78] When the antecedent sentence displays a sequence of verbs, one of these verbs must be identical to the one that identifies the VP ellipsis site.

a case of Comparative Deletion, we would predict that examples like (76) would be fully acceptable, contrary to fact.

(76) ??O Pedro detesta tanto a sogra como o João gosta [$_{PP}$-].
The Pedro hates as.much the mother-in-law as the João likes [$_{PP}$-]
'Pedro hates as much his mother-in-law as João likes'

Thus, we may admit that Comparative Deletion in EP is an instance of Null Object, involving non-definite quantificational complements of the verb.

Under this assumption, the island effects presented by Comparative Deletion in EP are easily accounted for, if we adopt the analysis of Null Object presented in Raposo 1986. Developing Huang's 1994 proposals, Raposo claims that the empty category in Null Object construction in EP may be analysed as a variable bound by a null operator.[79]

A question remains: how to correlate this account of Comparative Deletion in EP with the English case, given the lack of this construction in the standard language.[80]

(77) a. Mary buys more books than you buy.
b. Mary bought more books than he sold.

In a framework where constructions are not assumed as primitive objects, as is the case of the Principles and Parameters Theory or the Minimalist Program, this problem is not a real one. In fact, since Chomsky 1977, Comparative Deletion has been usually analysed in terms of an Operator-variable chain, involving either a null element with wh-features or not. In the latter case we meet the proposal of Kennedy 1997, which argues that the non-overt DegP moves to the left periphery of IP leaving a copy in its original site which is interpreted as a variable:

(78) Jupiter is more massive than [Op$_x$ Neptune is [$_{DegP}$ e]$_x$][81]
(cf. Kennedy 1997:159)

In some sense, this way of dealing with Comparative Deletion in English is not crucially different from the approach proposed for EP: the moved operator DegP is the correlate of the Null Quantified Object phrase we assumed to be at work in the latter language.

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[79] According to Raposo (1986:384-385), Null Object clauses are open sentences predicated of zero topics, which may be pragmatically controlled in languages like Portuguese and Chinese, but not English or French.

[80] Null Objects may occur in English in some contexts, such as in cooking recipes, as reported in Massan & Roberge 1989.

[81] In Kennedy 1997 the comparative connector selects for a CP; however he does not identify the DegP with a wh-phrase.

The proposals just presented enable us to account for the existence of island effects in EP Comparatives, even in the absence of wh-morphology. However, as said before, in this language, headed or free relatives may also appear as a part of the second conjunct (cf. (79)). However, in this case the relative clause does not present any intrinsic quantificational value, and we admit that Q--raising does not apply at LF; instead, movement of the wh-element operates.

(79) a. O João está muito mais alto este ano do que aquilo que era o ano passado.
The João is much more tall this year of.the that that that was the year past
'João is much taller this year than he was last year.'

b. Ela come mais gelados num mês do que os que tu comes num ano.
She eats more ice.creams in.a month of.the that the.what you eat in.a year
'She eats more ice creams in a month than what you eat in a year.'

The same kind of Comparatives can be found in Italian together with canonical Comparatives, as attested in (80a), which contrast with (80b) by the absence of the clitic *ne*:

(80) a. Maria ha mangiato più di biscotti di quelli$_i$ che ha mangiati t$_i$ Giulia.
Maria has eaten more of cookies than those that has eaten t Giulia
(Donati (1997:149)

b. Maria ha mangiato più biscotti di quanti$_i$ ne ha mangiati t$_i$ Giulia.
Maria has eaten more cookies than how.many of.them has eaten t Giulia
'Maria has eaten more cookies than Giulia ate.'

In sum, these examples seem to show that Romance languages present different kinds of Comparative structures exhibiting, in the second term of Comparison, an operator-variable chain. The problem how the resulting configurations are interpreted in terms of the syntactic constructions is derivative. It is a consequence of the interplay of the properties of the lexical items available in each language to play the role of comparative connectors with those of the elements that may denote degree/quantified expressions.

6. Concluding remarks

In this paper we have shown that a coordinate analysis of canonical Comparatives in European Portuguese is able to account for the main properties of this sort of construction. In particular, comparatives seem to be an instance of correlative coordination. It is this correlative nature that gives to the whole construction a semantic dependency nature, reminiscent of subordination.

Adopting an analysis of coordination in the line of Kayne 1994 and others, the head of the construction is considered the comparative connector, which selects the two members of the comparison as its specifier and complement, respectively.

As for the nature of the comparative connectors, although presumably diachronically related to Latin relative pronouns, they seem to have undergone a process of reanalysis, which has converted them in current EP into fix forms homophonous with some wh-constituents.

The fact that comparatives may contain in the second term a free or a headed relative does not mean that all comparatives should be analysed as free relatives. The islands effects exhibited by comparative clauses that have originally been advanced as an argument for their inclusion within the wh--constructions do not constitute a compelling evidence for the systematic presence of a wh-operator, since these island effects may also occur in other cases of A-bar movement.

Adopting classical analyses that had already emphasised the quantified nature of the second member of comparison, we have claimed that both Comparative and Subcomparative Deletions are distinct cases of Operator-variable chains. Relying on empirical evidence across other Romance languages, in particular French and Italian, we have argued that the so-called Comparative Deletion in European Portuguese is an instance of (Quantified) Null Object and we have analysed Subcomparative Deletion as a case of Quantifier Raising. Thus, the island effects received an explanation: both in Comparative and in Subcomparative Deletion the operator-variable chains are subject to economy conditions, requiring in each step of the derivation the strict locality between the operator and its copy.

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References

Abney, Steven (1987) *The English Noun Phrase in its Sentential Aspect*. PhD Dissertation. Cambridge, Mass: The MIT Press.

Bechara, Evanildo (1928) *Moderna Gramática Portuguesa*. São Paulo: Companhia Editora Nacional.

Beghelli, Phillipo & Tim Stowell (1997) Distributivity and negation: the syntax of each and every. In Szabolcsi, Anna (ed.) *Ways of Scope Taking*. Dordrecht: Kluwer.

Bianchi, Valentina & M. C. Figueiredo (1994) On some properties of Agreement-Object in Italian and in Brazilian Portuguese. In Mazzola (ed.) *Issues and Theory in Romance Linguistics: selected papers from the LSRL XXIII*. Washington, DC: Georgetown University Press.

Bianchi, Valentina & Roberto Zamparelli (2001) Comparative Correlatives. Handout from *GLOW Colloquium* Braga: 2001, April 8-11.

Bresnan, Joan (1972/1979) *Theory of Complementation in English Syntax*. Garland Publishing Inc: New York & London.

Bresnan, Joan (1973) The syntax of the comparative construction in English. *Linguistic Inquiry* 4:3.

Bresnan, Joan (1975) Comparative deletion and constraints on transformations. *Linguistic Inquiry* 7:1.

Bresnan, Joan (1976a) On the form and functioning of transformations. *Linguistic Inquiry* 7:1.

Bresnan, Joan (1976b) Evidence for a theory of unbounded transformations. *Linguistic Analysis* 2:4.

Bresnan, Joan (1977) Variables in the theory of transformations. In Culicover, Peter, Thomas Wasow & Adrian Akmajian (eds.) *Formal Syntax*. New York, San Francisco, London: Academic Press Inc.

Brito, Ana (1991) *A Sintaxe das Orações Relativas em Português*. Lisboa: Inic.

Brito, Ana (1993) Aspects de la syntaxe du SN en portugais et en français. *Revista da Faculdade de Letras do Porto, Série Línguas e Literaturas*, Tomo X, 25-53.

Bruening, Benjamin (2001) QR Obeys Superiority: Frozen Scope and ACD. *Linguistic Inquiry*, 32:2.

Chomsky, Noam (1977) On Wh Movement. In Culicover, Peter, Thomas Wasow & Adrian Akmajian (eds.) *Formal Syntax*. New York, San Francisco, London: Academic Press Inc.

— (1995) The Minimalist Program. Cambridge, Massachusets: MIT Press.

— (2000) Minimalist Inquiries: the Framework. In Martin, Roger, David Michaels & Juan Uriaguereka (eds.) *Step by Step – Essays in honor of Howard Lasnik*. Cambridge, Massachusets: The MIT Press.

Corver, Norbert (1993) A Note on Subcomparatives. *Linguistic Inquiry*, 24:4.

Corver, Norbert (1997) Much-Support as a Last Resort. *Linguistic Inquiry*, 28:1.

Costa, João & Inês Duarte (in press) Objectos Nulos em debate. In Castro, Ivo & Inês Duarte (eds.) *Razões e Emoção – Miscelânia de estudos oferecida a Maria Helena Mateus*.

Culicover, Peter & Ray Jackendoff (1997) Semantic Coordination despite Syntactic Coordination. *Linguistic Inquiry*, 28:2, 195-217.

— (1999) The view from the periphery: the English Comparative Correlative. *Linguistic Inquiry*, 30:4.

Cunha, Celso (1972) *Gramática do Português Contemporâneo*. Belo Horizonte: Editora Bernardo Álvares.

Cunha, Celso & Luís Filipe Cintra (1984) *Nova Gramática do Português Contemporâneo*. Lisboa: Edições Sá da Costa.

Cyrino, Sonia (1997) *O Objecto Nulo no Português do Brasil – um estudo sintáctico--diacrónico*. Londrina: Editora UEL.

Dias, Augusto Epiphânio (1917) *Syntaxe Histórica Portuguesa*. 5ª Edição, Lisboa: Livraria Clássica Editora.

Donati, Caterina (1997) Comparative clauses as free relatives: a raising analysis. *Probus* 9, 145-166.

Duarte, Inês (1987) *A Construção de Topicalização na Gramática do Português*. PhD Dissertation. Lisboa: Universidade de Lisboa.

Farrell, P. (1990) Null objects in Brazilian Portuguese. *Natural Language and Linguistic Theory*. vol. 8, pp. 325-346.

Fonseca, Joaquim (1994) Pragmática e sintaxe-semâncica das consecutivas. *Pragmática Linguística. Introdução, Teoria e Descrição*. Porto: Porto Editora, 133-195.

Galves, Charlotte (2001) O Objecto Nulo e a Estrutura da Sentença em Português Brasileiro. In *Ensaios sobre as Gramáticas do Português*, cap. 5. Campinas: Editora da Unicamp.

Grimshaw, Jane (1987) Subdeletion. *Linguistic Inquiry* 18:659-669.

Hankamer, Jorge (1973) Why there are two than's in English. *CLS* 9:179-192.

Hornstein, Norbert (1994) An argument for Minimalism: the case of antecedent contained deletion. *Linguistic Inquiry* 25, 455-480.

Hornstein, Norbert (1999) Minimalism and Quantifier Raising. In Epstein, Samuel & Norbert Hornstein (eds.) *Working Minimalism*. Cambridge, Mass.: The MIT Press.

Huang, James (1984) On the Distribution and Reference of Empty Pronouns. *Linguistic Inquiry*, 15:4.

Johannessen, Janne (1998) *Coordination*, Oxford: Oxford University Press.

Johnson, Kyle (2000) How far will Quantifiers Go?. In Martin, Roger, David Michaels & Juan Uriagereka (eds.) *Step by Step: Essays on Minimalist Syntax in honour of Howard Lasnik*. Cambridge, Mass.: the MIT Press.

Kato, Mary (1993) The distribution of null and pronominal objects in Brazilian Portuguese. *Linguistic Perspectives on the Romance Languages*. Amsterdam: John Benjamins.

Kato, Mary & Eduardo Raposo (2001) O Objecto nulo definido no Português Europeu e no Português Brasileiro: convergências e divergências. In Correia, Clara & Anabela Gonçalves (orgs.) *Actas do XVI Encontro Nacional da Associação Portuguesa de Linguística*. Lisboa: APL.

Kayne, Richard (1994) *The Antisymmetry of Syntax*. Cambridge, Massachusetts: The MIT Press.

Kennedy, Christopher (1997a) Antecedent-Contained Deletion and the Syntax of Quantification. *Linguistic Inquiry*, 28:4. 662-688

— (1997b) *Projecting the Adjective: the Syntax and Semantics of Gradability and Comparison*. PhD Dissertation. Universidade da Califórnia em Santa Cruz.

Kitahara, Hisatsugu (1996) Raising Quantifiers without Quantifier Raising. In Abraham, Werner, Samuel Epstein, Hoskuldur Thráinsson & C. Jan-worter Zwart (eds.) *Minimal Ideas – Syntactic studies in the Minimalist Framework*. Amsterdam/Philadelphia:John Benjamins Publishing Company, 189-198.

Lechner, Winfried (1999) *Comparatives and DP-Structure*. PhD Dissertation. Amherst, Massachusetts: University of Massachusetts.

— (2001) Reduced and Phrasal Comparatives. *Natural Language & Linguistic Theory*. 19:683-735.

Longobardi, Giuseppe (1991) In defence of the correspondence hypothesis: island effects and parasitic gaps in Logical Form. In Huang, James & Robert May (eds.) *Logical Structure and Linguistic Structure*. Dordrecht: Kluwer.

Lopes, O. (1971) *Gramática Simbólica do Português – Um Esboço*, Lisboa: Fundação Calouste Gulbenkian; 2ª ed. corrigida, 1972.

Massan, D. & Y. Roberge (1989) Recipe Context Null Objects in English. *Linguistic Inquiry* 20:134-139.

Mateus, Mª Helena, Ana Brito, Inês Duarte & Isabel Faria (1983, 1992) *Gramática da Língua Portuguesa*. Lisboa: Caminho

Matos, Gabriela (1992) *Construções de Elipse do Predicado em Português: SV Nulo e Despojamento*. Ph D Dissertation. Lisboa: Universidade de Lisboa.

— (2000) Across-the-board clitic placement in Romance Languages. *Probus* 12. 229, 259.

— & Ana Brito (in press) Estruturas Comparativas Canónicas em Português Europeu. In Castro, Ivo & Inês Duarte (eds.) *Razões e Emoção – Miscelânea de Estudos oferecida a Maria Helena Mateus*.

May, Robert (1985) *Logical Form: its Structure and Derivation.* Cambridge, Mass.: The MIT Press.

Munn, A. (1993) *Topics in the Syntax and Semantics of Coordinate Structures*, PhD Dissertation, U. Maryland, Maryland.

Napoli, Donna (1983) Comparative Ellipsis: a Phrase Structure Analysis. *Linguistic Inquiry* 14:4.

Pinkam, Jessie (1985) *The Formation of Comparative Clauses in French and English*. New York & London: Garland Publishing Inc.

Quirk, Randolf, Sidney Greenbaum, Geoffrey Leech & Jan Svartvik (1972) *A Grammar of Contemporary English*. London: Longman.

—, (1985) *A Comprehensive Grammar of English Language*. London: Longman.

Peres, João (1997) Sobre conexões proposicionais em Português. In Brito, Ana Maria, Fátima Oliveira, Isabel Pires de Lima & Rosa Martelo (eds.) *Sentido que a Vida Faz —Estudos para Óscar Lopes*. Porto: Campo das Letras.

Raposo, Eduardo (1986) On the null object in European Portuguese. In Jaeggli, Osvald & Carmen Silva-Corvalán (eds.) *Studies in Romance Linguistics*. Dordrecht: Foris.

— (1998) On the null object in European Portuguese. In Schwegler, A., B. Tranel & M. Uribe-Etxebarria (eds.) *Romance Linguistics: Theoretical Perspectives*. Amsterdam: John Benjamins.

Rizzi, Luigi (1986) Null Objects and the Theory of pro. *Linguistic Inquiry* 17: 501-558.

Ross, John (1967) *Constraints on Variables in Syntax*. Indiana, Bloomington: University Linguistics Club.

Sáez del Álamo, Luis (1999) Los cuantificadores: Las construcciones comparativas e superlativas. In Bosque, Ignacio & Violeta Demonte (1999) (eds.) *Gramática Descriptiva de la Lengua Española*. Madrid: Espasa.

Said Ali (1908) *Dificuldades da Língua Portuguesa*. Rio de Janeiro/São Paulo: Laemert e C. Livreiros. Reprinted in (1957), Rio de Janeiro: Livraria Acadêmica.

Sag, Ivan (1980) *Deletion and Logical Form*. New York & London: Garland Publishing, Inc.

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