

Neuter Relative Constructions*

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1. Introduction

The goal of this paper is to provide an analysis of relative clause constructions with the neuter article in Spanish. These are constructions such as (1) and (2) below:

- (1) Pedro es lo alto que era su Padre
Pedro be.3.SG lo tall.M.SG that was.3.SG his.M.SG father
‘Pedro is as tall as his father was’
- (2) La película no fue lo exitosa que fue la novela
the.F.SG movie.F.SG not was.3.SG lo successful.F.SG that was the.F.SG novel.F.SG
‘The movie wasn’t as successful as the novel’

The main characteristic of these neuter relative constructions is that they are invariably quantity-oriented: they uniformly give rise to a ‘degree’ or ‘amount’ interpretations. The example in (1) can only convey that Pedro is tall to the same degree or extent that his father was (or at least as much). Conversely (2) expresses that the movie was not successful to the same extent that the novel was successful.

The general consensus in the literature, thus, has been that neuter relative constructions in Spanish are fundamentally quantity denoting ‘in some capacity’ (Plann 1980, Torrego 1988, Bosque and Moreno 1990). While traditional analyses have not delved into the what it means to be quantity denoting, later work has laid out some similarities between neuter relative constructions and other *bona fide* degree constructions, such as comparatives and equatives, concluding that neuter relative constructions too are amenable to similar semantic analyses. In particular, for instance, early proposals in Gutiérrez-Rexach (1999, 2016) have suggested that neuter relative constructions are not in fact object denoting, but correspond

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instead to definite descriptions of degrees, and thus belong to type d in the semantic model. Claims along these lines can be summarized by paraphrasing the meaning of (1)/(2) as follows:

- (3) a. $\llbracket (1) \rrbracket$ = Pedro is d -tall, Pedros's dad is d' -tall and $d \geq d'$.
 b. $\llbracket (2) \rrbracket$ = It is not the case that the novel was d -successful, where the novel was d' -successful and $d \geq d'$

This paper focuses on the syntactic composition of neuter relative constructions, with the hopes to explain the availability of such constructions in Spanish, but not in languages like English. In a nutshell, syntactically neuter relatives are taken to be free relatives which semantically denote maximal degrees serving the role of a Degree Phrase in a larger Adjectival Phrase, part of which is elided under identity. With this goal ahead, this paper is organized as follows. In section 2 I present some basic facts about the distribution of neuter relative constructions in Spanish that any comprehensive analysis must account for. In section 3 I argue in favor of a syntactic treatment of neuter relatives whereby, despite surface appearances, they are treated as a variety of free relatives. Finally, section 4 argues that the the structurally neuter relatives occupy a Degree Phrase slot of an Adjectival Phrase, very much like other degree expressions such as *six feet* do in APs such as *six feet tall*.

2. Basic properties

There are three main properties of neuter relative constructions in Spanish that we aim to explain. The first one relates to their flexibility: they are not only possible with adjectives, but in fact they can be formed using predicates that belong to a variety of syntactic categories, as long as they are gradable, including adverbs, nominal and even full Prepositional Phrases, as shown below:

- (4) lo {rápidamente / *ayer} que llegó
 lo rapidly yesterday that arrived.3.SG
 'how {fast / *yesterday} she arrived'
- (5) lo {niña / *historia} que es Lisa
 lo child.F.SG history that is.3.SG Lisa
 'how {childish / *history} is Lisa'
- (6) lo {en punto / *desde casa} que llegó
 lo on point / from home that arrived.3.SG
 'how {on time / *from home} she arrived'

The second noteworthy property of neuter relative constructions is the obligatoriness of the relative clause. Failing to have an overt relative clause invariably leads to ungrammaticality:

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- (7) lo alto *(que era su Padre)
lo tall.M.SG that was.3.SG his.M.SG father
'how tall his father was'
- (8) lo exitosa *(que fue la novela)
lo successful.F.SG that was the.F.SG novel.F.SG
'how successful the novel was'

Finally, the third important pattern pertains to the definite determiner itself. Here we find two aspects of neuter relative constructions that must be accounted for. First, they can only be formed with the definite determiner—hence their name.

- (9) {lo / *esto / *mucho / *algo} exitosa que fue
{lo / this / much / some} successful.F.SG that was.3.SG
'how successful it was'

The agreement properties of the definite determiner are also particular to neuter relative constructions. In ordinary restrictive relative clauses in Spanish, definite articles must agree in number and gender with the head noun, as shown in (10) below. Neuter relative constructions however do not abide by this requirement: they uniformly use *lo*, irrespective of the ϕ -features of the fronted predicate, as demonstrated by (11).

- (10) {las / *la / *el / *los} bonitas fotos
{the.F.PL / the.F.SG / the.M.SG / the.M.PL} beautiful.F.PL photo.F.PL
'the beautiful pictures'
- (11) {lo / *la} exitosa que fue la novela
{lo / the.F.SG} successful.F.SG that was.3.SG the.F.SG novel.F.SG
'how successful the novel was'

In contrast, the predicate that is seemingly heading the relative clause must agree with material internal to the relative clause, suggesting that agreement is not altogether disrupted in these constructions.

- (12) lo {bonitas / *bonita} que son las fotos
lo {beautiful.F.PL / beautiful.M.SG} that be.3.SG the.F.PL photo.F.PL
'how beautiful the pictures are'

These agreement patterns suggest a close relationship between the gradable predicate and the relative clause, in a manner that is categorically different from the relationship between the neuter determiner *lo* and the rest of the relative clause construction. In the next section we capitalize on this categorical distinction to propose a syntactic configuration for neuter relative constructions as free relative clauses.

3. Syntactic make-up

This section argues that neuter relative constructions in Spanish are better understood as *bona fide* free relatives, sharing properties with two other existing relative constructions in the language: *lo que* relative constructions and quantity denoting free relative constructions.

The syntactic make-up of neuter relative constructions in Spanish depends on three specific properties of Spanish free relatives that are absent from other languages. Capitalizing on these properties thus not only allows to understand the properties of neuter relatives described on section 2, but also sheds light on the cross-linguistic rarity of these constructions.

The first relevant property of free relatives in Spanish is the ability to form quantity denoting free relatives, formed with the quantity relative pronouns *cuan* and *cuanto*. These quantity free relatives have furthermore the ability to pied-pipe a predicate to the front of the relative clause.

- (13) Comió cuantos pepinos quiso
ate.3.SG how.much cucumbers wanted.3.SG
'She ate as many cucumbers as she wanted'

- (14) Corrió cuan rápido fue necesario
run.3.SG how.much fast was.3.SG required
'She run as fast as it was required'

Note that this type of pied-piping is not typically observed in other languages (e.g., **I will eat how much food she makes*), which must usually resort to different types of relative pronouns, as in the case of ever-free relatives in English.

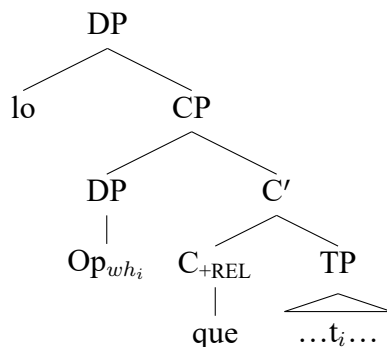
A further important consideration with respect to Spanish free relatives is the possibility of forming them with an overt definite determiner. Free relatives in Spanish are ungrammatical with the relative pronoun *what* (*que* in the language). This type of relative constructions must instead be formed by combining a CP with the definite article *lo* (Plann 1980, Brucart 1992, Arregi 1998, a.o.). Note too that this type of free relative clause constructions allow both an individual (i.e., object) level as well as a degree or amount interpretation.

- (15) Comió lo que quiso
ate.3.SG lo that wanted.3.SG
'She ate {what she wanted / as much as } she wanted'

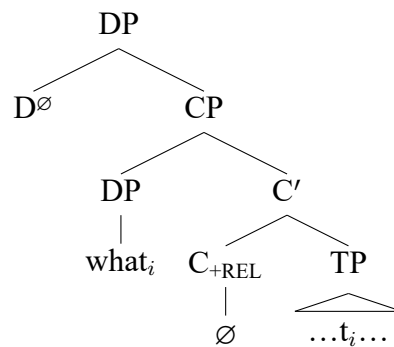
Thus, Spanish has both the ability to form free relatives with overt definite determiners and to pied-pipe predicates that have degree- and quantity-oriented meanings. These constructions provide the tools that we can exploit to account for the syntactic structure of neuter relative constructions. For concreteness, assume a baseline syntactic analysis for free relatives in Spanish below, as compared with its English counterpart (following Jacobson 1995, Caponigro 2004, Arregi 1998, Ojeda 2013, Gutiérrez-Rexach 2016).

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(16) Spanish *lo que* free relative

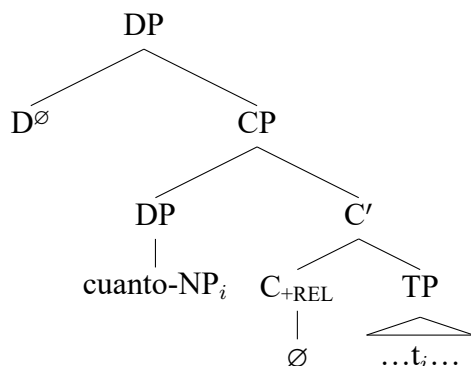


(17) English free relative

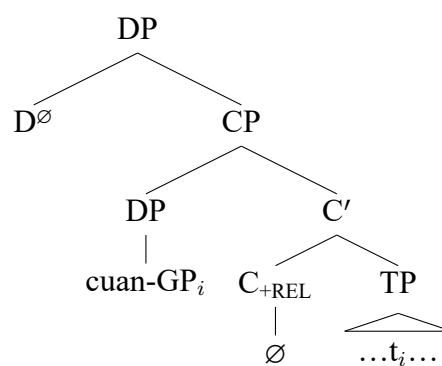


The structures are formally identical, differing only in the pieces that each language realizes overtly vs. covertly: Spanish shows overtly what English does covertly and vice-versa. The structures corresponding to Spanish quantity free relatives build on (16) above, with the crucial addition of the optionally pied-piped predicate that may be fronted together with the relative pronoun.

(18) Nominal quantity free relative



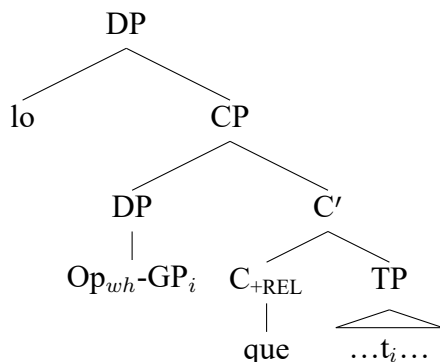
(19) Gradable quantity free relative



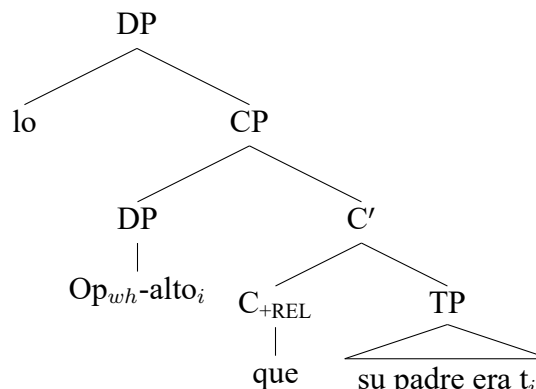
These structures capture the key properties of free relatives in Spanish, namely, the ability to form quantity free relatives, the ability to pied-pipe material with the moving *wh*-operator and the ability to form free relatives with an overt determiner. In the next section we show how with these pieces in place nothing else is required to account for the internal syntactic make-up of neuter relative constructions.

As foreshadowed earlier, we analyze neuter relative constructions as syntactically isomorphic to free relative constructions in Spanish. Example (20) below provides the general skeleton of neuter relative constructions, and (21) provides the particular case of example (1) above.

(20) Neuter relative constructions



(21) Structure of (1)



In this sense neuter relative constructions are not just superficially similar to free relatives, but they constitute one more instance of the same class of relative constructions. Like *lo que* free relatives, neuter relatives have an overt definite article, and like quantity free relatives with *cuan* and *cuanto* relative pronouns they involve a degree denoting *wh*-operator that pied-pipes a gradable predicate, albeit a covert one, so that only pied-piped material is visible on the specifier position of CP. The key differences between neuter relative constructions and quantity free relatives then amounts to the (c)overtness of the morphological pieces involved in their construction: what quantity free relatives do overtly, neuter relatives do covertly and vice-versa.

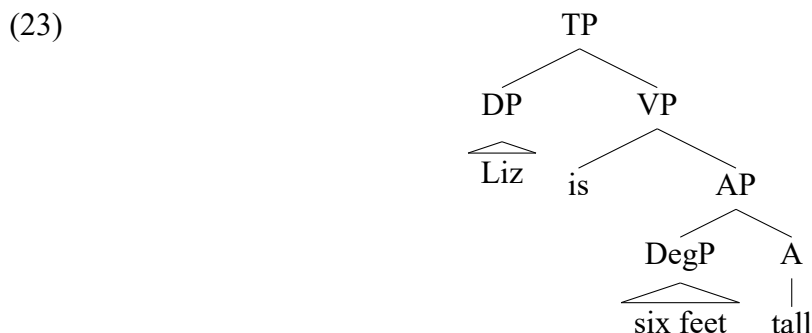
A number of welcome results follow from this syntactic conception of neuter relatives. First, for obvious reasons the obligatoriness of the relative clause is no longer surprising and follows immediately. Second, the apparent syntactic flexibility of the superficial pied-piped material that gives the impression to act as the head of a relative clause is also explained, since it is not just the gradable predicate that is being displaced, but a full *wh*-phrase, guided by the presence of the familiar *wh* operator and a [+REL] feature on the head of the CP projection. And third, the agreement patterns are no longer surprising either: the predicate originates inside the CP and so it is expected to establish all agreement relations there. The neuter agreement on *lo* thus follows from the fact that, unlike with restrictive relative clauses, its sister is a CP that renders its domain opaque for agreement, and thus there is no nominal goal for D. Finally, the fact that these constructions use a combination of features that not available in other languages help us make sense of the relative cross-linguistics rarity of neuter relative constructions.

4. The Adjective Phrase

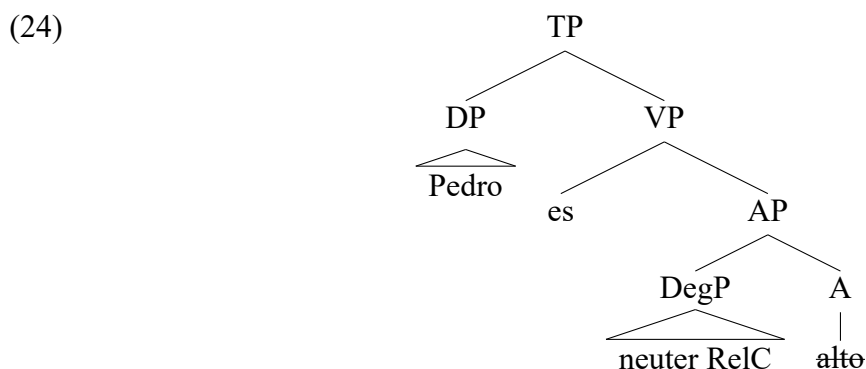
So far, we have provided a syntactic account of the internal make-up of neuter relative constructions as free relatives, but nothing we have said explains how this free relative further composes with the rest of the clause. Here we suggest that neuter relatives must always be part of a larger Adjectival Phrase, similar to ordinary adjectives modified by measuring phrases, allowing them to appear in predicative positions like other ordinary adjectives. Below in (22) we present the syntactic schema of such larger APs:

(22) $[_{AP} [_{DegP} \text{neuter RelC}] [_{A} \text{Gradable Predicate}]]$

In essence, the idea is that the semantic task of a neuter relative construction within the larger Adjectival Phrase is identical to of any overt measure phrase it determines an extent that fills in the *d* variable of the gradable predicate yielding the set of individuals that possess the property of being



In the case of neuter relatives, the role of the degree obtained from the free relative clause is also to measure the extent of the elided adjective, again by saturating its degree variable:



There are two important things to notice about this configuration. The first one is that it sheds light on the determiner restriction we observed above, namely that neuter relative constructions can only be formed with the definite determiner: if they must be interpreted as a definite description, just like other free relatives typically are, and hence involve some notion of maximality, just like other constructions with definite determiners, it is not surprising that other types of determiner/quantifier are ruled out in this configuration.

The second observation is that the analysis presented here requires a second copy of the gradable predicate that sits inside the relative clause. This second copy sits outside of the relative clause, acting as the main predicate of the full sentence. Evidence in favor of such assumption comes from the fact neuter relative constructions allow in fact spelling out the second, higher copy (see Bosque and Moreno 1990):

- (25) Pedro es lo que era su Padre alto
 Pedro be.3.SG lo that was.3.SG his.M.SG father of tall.M.SG
 ‘Pedro is as tall as his father was’

This strategy is fully productive and applies to all neuter relatives. There is, moreover, no discernible difference in interpretation. The only noticeable difference is indeed syntactic, since in such configurations the preposition *de* cannot be dispensed with, otherwise the resulting sentence would be ungrammatical. Interestingly, however, this is also the case in other types of measuring constructions that presumably lack a DP internal copy such as (26a). This suggests that it is the highest copy in (26b) below the one that is being pronounced, and not just a reconstructed CP-internal copy. The two constructions are thus isomorphic.

- (26) a. [_{AP} [_{DegP} dos metros] [_A *(de) alto]]
 b. [_{AP} [_{DegP} lo que era su Padre] [_A *(de) alto]]

The deletion operation that targets the higher CP-external copy of the gradable predicate is very reminiscent of Comparative Deletion (Kennedy 1999, Kennedy and Merchant 2000). In its simplest form, Comparative Deletion targets the second occurrence of the phrase introducing the object or res of a comparative construction. The overt realization of such second copies leads to ungrammaticality.

We suggest that type of Comparative Deletion that is at work here is a ‘strong’ one, the same type of deletion we find in comparative constructions in Spanish. In this version, there is both (i) obligatory deletion under identity and (ii) obligatory identity (see e.g., Gutiérrez Ordóñez 1994 a.o.).

- (27) Compré más libros de los libros que compraste tú.
 bought.1.SG more books than the book that bought.3.SG you
 ‘I bought more books than you bought’

- (28) a. *...más libros de los libros que compraste tú.
 b. *...más libros de los cómics que compraste tú.
 c. #...más libros de los cómics que compraste tú.

Neuter relative constructions do not allow neither: (i) more than one overtly realized copy of the gradable predicate nor (ii) different gradable predicates. Below we reproduce the critical aspects of paradigm introduced above in with neuter relative variants.

- (29) *lo alta que era la mesa de alta
 lo tall that was.3.SG the table of wide

- (30) a. *lo alta que era la mesa de ancha
 b. # lo que era la mesa de ancha

Example (29) shows that deletion is obligatory under deletion. Examples (30a) and (30b) show that, in addition, identity is also obligatory. Note for instance that there is nothing incongruent with the putative meaning of a neuter relative (29): it would simply determine that the relevant measure along the dimension of width is that corresponding to the degree *d* such that the table was *d*-tall. If predicated of, say a subject like the desk, it would simply state that the desk is wide to the extent that the table is tall. There is nothing incongruent about this meaning however, and yet these forms cannot be generated, suggesting that a strong form of Comparative Deletion must be at work.

5. Conclusion

We started off by noting that some general issues regarding the syntactic make-up of so-called neuter relative constructions in Spanish. The first problem we encountered had to do with the fact a definite determiner is able to combine with a syntactically very heterogeneous group of gradable predicates. We saw that a natural explanation for the distribution of the determiner *lo* can be reached by simply assuming that it semantically contributes a maximality operator, as it has been argued is generally the case for free relatives.

They reason why it may then composed with such complements is explained by the fact that, contrary to appearances, the determiner *lo* is not directly composing with a gradable predicate, but with a CP denoting a set of degrees, and thus the ordinary semantic properties of the definite determiner can be maintained. We further argued that neuter relatives constitute Degree Phrases in the Specifier position of an Adjective Phrase (hence of type *d*), semantically saturating the degree variable of the higher, CP-external gradable predicate. In addition, we now understand why the definite determiner does not agree with what looks like the ‘head’ of the relative clause: it is because the fronted gradable predicate is not in fact the head of a relative clause, it is instead pied-piped by a null *wh*-relative pronoun, akin to its overt counterparts in Spanish *cuan/cuanto*, and thus it is embedded inside a quantity *wh*-phrase, containing no overt nominal material, overt or otherwise, that can serve as goal for the determiner.

If this analysis is on the right track, it provides a way to think about the crosslinguistic distribution of neuter relatives as well, as it makes clear predictions: they are expected, all else equal, in languages that can form free relatives with (i) an overt definite determiner and with (ii) quantity *wh*-words that can pied-pipe a predicate.

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