

The anatomy of some *wh*-constructions

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Introduction.

Some constructions seem to live a dual life in that a single surface form can nevertheless be interpreted as being nominal (DP) or propositional (CP). Chief among these are *wh*-constructions (*Wh*Cs), which may alternate between free relatives and questions, and definite relative clauses (i.e. of the form *the NP CP*), which can be often interpreted as definite descriptions or as concealed questions. For each of these two constructions, syntacticians and semanticists alike have tried to understand the connection between their nominal vs. propositional nature. My goal in this paper is to show that, rather than considering *Wh*Cs and definite relative clauses as separate constructions altogether, we should better think of them as representing different points along the same continuum.

Background.

There is a close resemblance between free relatives and subordinate questions in English. The main differences between the two constructions amount to: (i) the feature specification of the C° head and (ii) the type of operator that mediates between the CP and the rest of the clause. While subordinate questions require a [+Q] C° that introduces the semantic nucleus (e.g. Karttunen 1977 a.o.), a free relative relies on simple abstraction. Given the common assumption that *wh*-words in free relatives and questions make the same semantic contribution (e.g. Caponigro 2004), the resulting denotation at the CP-level is similar in the two cases: a property of individuals for free relatives, and a property of propositions for subordinate questions. Since with these denotations they cannot compose further with the rest of the clause, the two constructions need a shift: a null definite determiner for free relatives (e.g. Camponigro 2004) and an ANSWERHOOD operator contributing Russell's *I*-operator (Dayal 1996) for subordinate questions. In contrast, definite relatives differ in that the semantic lowering is carried out overtly, and the *wh*-operator responsible for carrying the relativization/abstraction operation is null. Schematically:

(1)

- a. **Question:** $[_{CP} \text{ANS} \quad [_{CP} [_{WH} (\text{NP})]_i \quad [\text{C}^\circ [+Q] \quad \emptyset]$
 $[_{TP} \dots t_i \dots]]]]$
- b. **Free Relative:** $[_{DP} D_\emptyset \quad [_{CP} [_{WH} (\text{NP})]_i \quad [\text{C}^\circ [+REL] \quad \emptyset]$
 $[_{TP} \dots t_i \dots]]]]$
- c. **Restrictive RC:** $[_{DP} D \quad [_{NP} [_{Op_{wh}} \text{NP}]_i \quad [\quad \text{C}^\circ \quad [+REL]$
 $(\text{that}) \quad [_{TP} \dots t_i \dots]]]]$

Questions.

More interesting than their differences are the similarities between the constructions in (1): the three of them share an ι -operator, a *wh*-operator and a C° head with variable specification, varying mainly on the (c)overtness of these pieces. This state of affairs raises two main questions: (i) Why can't ANS/D_\emptyset be overt in Questions/Free Relatives as it is in (1c)? (ii) Why can't WH be covert in Questions and Free Relatives, as in Op_{wh} ?

Main claim.

My goal is to show that, even they may not resemble so on the surface, there are indeed cases where we find overt ANS operators in Questions and overt determiners in free relatives; i.e. I claim that some of the missing links in the paradigm in (1) are in fact attested. Concretely, I argue that Spanish allows the following two syntactic configurations for Free Relatives and Questions respectively:

(2)

- a. **FR:** $[_{DP} D \quad [_{CP} [\text{Op}_{wh} \quad \text{Pred}]_i \quad [\text{C}^\circ [+REL] \quad \emptyset \quad [_{TP} .$
 $\dots t_i \dots]]]]$ cf. (1b)
- b. **Q:** $[_{CP} D \quad [_{CP} [\text{Op}_{wh} \quad \text{NP}]_i \quad [\text{C}^\circ [+Q] \quad \text{that}$
 $[_{TP} \dots t_i \dots]]]]$ cf. (1a)

Case study I: (2a).

Spanish is well-known for not allowing ordinary free relatives with the *wh*-phrase *what*; instead, free relatives of this kind must be formed by combining a CP with the definite article *lo*.

- (3) *Juan comió* [_{DP} *lo que quiso*]
 Juan ate D.NT that wanted
 [Lit.: 'Juan ate the that wanted']
 'Juan ate {what/as much as} he wanted'

Less known is the ability of Spanish to form Degree Neuter Relatives (e.g. Ojeda 1982, a.o.), an unusual construction involving a relative clause seemingly headed by a gradable predicate and the neuter determiner *lo*.

- (4) *Juan es* [_{DP} *lo alto que era su padre*]
 Juan is D.NT tall that was his father
 'Juan is as tall his father was'
 [Lit.: 'Juan is the tall that his father was']

I suggest that Degree Neuter Relatives should be regarded as sharing properties both with ordinary free relatives in (3) – the overt D-head – and free relatives with quantity *wh*-words like *cuan* below – the ability to pied-pipe a predicate.

- (5) *Juan es cuan alto fue su padre*
 Juan is how tall was his father
 'Juan is as tall as his father was'
 [Lit.: 'Juan is how-much tall his father was']

The syntactic configuration that I suggest for (4) corresponds to that of (2a): like ordinary free relatives in (3), both constructions involve an overt definite determiner. Both also involve the movement of a *wh*-phrase to the specifier of CP, but in the case of Degree Neuter Relatives, the *wh*-phrase is headed by a null variant of a quantity-*wh*-phrase and includes the gradable predicate, just like its overt variant in (5). Thus, on this analysis, the head of the Degree Neuter Relative is not in fact a gradable predicate as it appears, since the predicate is instead embedded within a complex *wh*-phrase. This provides an explanation for two puzzling facts. First, unlike ordinary restrictive relatives, Degree Neuter Relatives show a disrupted agreement pattern: the

definite article *lo* never agrees with what is seemingly the head of the relative clause (6a); in contrast, the gradable predicate always must agree with CP-internal material (6b).

(6)

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|----|-----------|------------------------|--------------|----------------|---------------------------|
| a. | { | <i>lo/</i> | <i>*la</i> } | <i>alta</i> | <i>que era su madre</i> |
| | | D.NT | D.FM.SG | tall.FM.SG | that was her mother.FM.SG |
| b. | <i>lo</i> | { <i>*alto/ alta</i> } | | <i>que era</i> | <i>su madre</i> } |
| | D.NT | tall.MS.SG | tall.FM.SG | that was | her mother.FM.SG |

Second, predicates of any syntactic category that are coercible into a gradable interpretation are grammatical. Given that predicates of different categories are otherwise extractable to differing degrees in Spanish, this flexibility is puzzling if the predicates themselves were undergoing movement. On the present analysis, however, this issue does not arise—all of the constructions in (7) involve movement of a *wh*-phrase. (The paper provides a full semantic analysis as well.)

(7)

- | | | | | |
|----|-------------|--|------------------|---------------|
| a. | <i>lo</i> | { <i>rápidamente/ *ayer</i> } | <i>que llegó</i> | ADVERBIAL |
| | D.NT | rapidly yesterday | that arrived | |
| | | [how {fast / yesterday} she arrived] | | |
| b. | <i>lo</i> { | <i>en punto/ *desde casa</i> } | <i>que llegó</i> | PREPOSITIONAL |
| | D.NT | on point from home | that arrived | |
| | | [{punctually / from home} she arrived] | | |

Case study II: (2b).

Spanish allows a construction, known as Emphatic Relatives, that have the surface appearance of ordinary restrictive relatives, but differ in two crucial respects: (i) they may appear as complements to clause-embedding predicates (*sensu Lahiri 2002*), and (ii) they are not interpreted as denoting individuals, but as questions.

- (8) { Sé/ Me pregunto } *las manzanas* *que trajo*
Juan
 know me ask the.FM.PL apple.FM.PL that brought
Juan
 ‘{I know/I wonder} what apples Juan brought’

I show that the Emphatic Relatives do not share, despite appearances, the same syntactic distribution of DPs modified by restrictive relatives. I present some arguments here (more in the paper). First, Emphatic Relatives are grammatical under rogative predicates like *wonder*, unlike DPs interpreted as concealed questions (e.g. **I wonder the capital of Italy*; same judgment in Spanish). Second, generally, DPs modified by relative clauses share the syntactic distribution of unmodified DPs. This is unlike Emphatic Relatives, for which the *que*-clause is obligatory.

- (9)
- a. {Sé / Me pregunto / Te dije } *las manzanas* **(que trajo Juan)*
~~X~~ *no que-clause*
- b. Yo ví *las manzanas* *(que trajo Juan)*
 ✓ *no que-clause*
 I saw the.FM.PL apple.FM.PL that brought Juan
 ‘I saw the apples (that Juan brought)’

Third, like questions and exclamatives, Emphatic Relatives show obligatory SV-inversion. With restrictive relatives, however, SV inversion is optional (just like in declarative sentences).

- (10)
- a. **{Sé/ Me pregunto} las manzanas que Juan trajo*
~~X~~ *no inversión*
 Know wonder the.FM.PL apple.FM.PL that Juan brought
- b. Yo ví *las manzanas que Juan trajo*

✓no inversion

I saw the.FM.PL apple.FM.PL that Juan brought

And fourth: animate objects in Spanish trigger DOM-marking, by means of the preposition *a*. Whereas DPs modified by restrictive relatives trigger DOM, surface-identical Emphatic Relatives do not.

(11)

- a. *Estudian los delegados que*
enviarán XDOM
evaluate.3.PL the.MS.PL representative.MS.PL
that send
'They are evaluating what representatives they will send.3.PL'
- b. *Estudian a los delegados que*
enviarán ✓DOM
evaluate.3.PL to the.MS.PL representative.MS.PL
that send
'They are evaluating the (individual) representatives they will send.3.PL'

Thus, Emphatic Relatives cannot be subsumed under restrictive relatives. I propose that the syntactic structure of Emphatic Relatives involves a null *wh*-operator moves to [Spec, CP], checking a [WH] feature on C°[+Q], which hosts Karttunen [1977]'s question nucleus. Moreover, the definite article is a lexicalized variant of Dayal [1996]'s ANS-operator. Thus, Emphatic Relatives have underlyingly interrogative syntax and they denote a subordinate question. More specifically, they correspond to one of the cases missing in the paradigm of (1), as represented in (2b). (The full paper shows that their distribution is that of subordinate questions and provides a semantic analysis.)

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