Predicate doubling in Spanish:
On how discourse may mimic syntactic copying

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To the memory of Luis Vicente.
Syntax stands on the shoulders of giants.

1 Introduction

Predicate doubling is a construction in which two occurrences of the same lexical V or VP appear; PREDICATE 1 occupies a position in the left periphery, while PREDICATE 2 remains in a clause-internal position.

(1) $\underbrace{\text{VERB (XP)}}_{\text{PREDICATE 1}}$ ... [CLAUSE ... (AUX/MODAL) ... $\underbrace{\text{VERB (XP)}}_{\text{PREDICATE 2}}$ ...]

Typically, the verb within PREDICATE 1 is an infinitive.

(2) a. **Comprar**, **compré** un auto.
        to.buy   bought.1SG a   car
        'As for buying, I bought a car.'
    b. **Comprar el auto**, ya   lo **compré**
        to.buy   the car   already it bought.1SG
        'As for buying the car, I bought it already.'
    c. **Comprar el auto**, efectivamente pude   **comprar el auto**
        to.buy   the car   effectively   could.1SG to.buy   the car
        'As for buying the car, I was indeed able to buy the car.'

Within the generative tradition, these constructions have been analysed as involving multiple copy spell-out (e.g., Cho & Nishiyama 2000, Abels 2001, Nunes 2004, Kobele 2006, Landau 2006).

This line of analysis has been advanced for Spanish by Vicente (2007, 2009). The derivation in (3) illustrates a case like (2a), in which PREDICATE 1 is only an infinitive.

(3) a.   b.
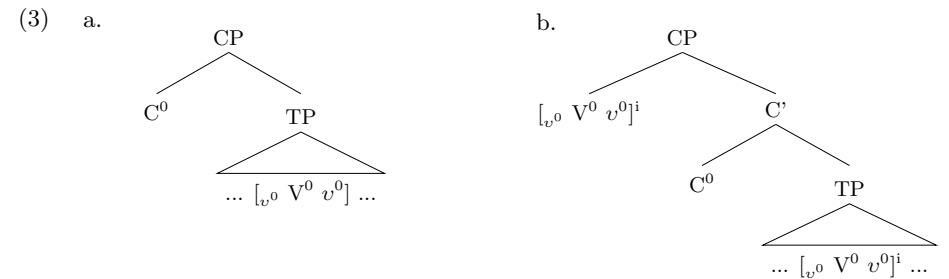
The following is the analysis for cases like (2b) in which PREDICATE 1 is a full phrase.

(4) a.   b.
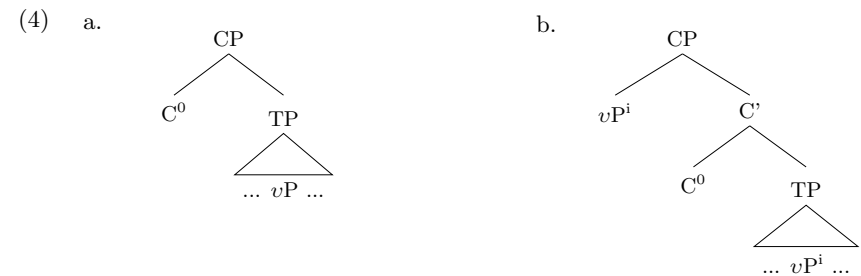
To account for the distinct morphology in both verbs, Vicente assumes that an infinitival suffix appears by default on bare verbal roots.

(5) INFINITIVE BY DEFAULT (adapted from Vicente 2009: 170)
    As $[_{v^0}\ V^0\ v^0]$ lacks any agreement projection, it ought to be spelled out as a bare uninflected root. However, it is not possible to spell out a bare root in Spanish. Therefore, as a Last Resort mechanism, the morphological component spells out this category as an infinitive by default.

There is a very good reason to maintain a movement analysis for Spanish predicate doubling: PREDICATE 1 and PREDICATE 2 are subject to locality constraints that are reminiscent of those observed in A'-movement. To begin with, the construction is attested with subordinate clauses.

(6) a. **Comprar**, Cosmo dice que Eliana **compró**   el   libro.
        to.buy   Cosmo says that Eliana bought.3SG the book
        'As for buying, Cosmo says that Eliana bought the book.'
    b. **Comer**, quiero   **comer** una pizza.
        to.eat   want.1SG to.eat   a   pizza
        'As for eating, I want to eat a pizza.'

However, predicate doubling is impossible if PREDICATE 2 is within an island, e.g., a relative clause (7a), an adjunct (7b), a preverbal subject (7c), a coordinate structure (7d), or a complex NP (7e).

(7) a. * **Comprar**, conozco   a una mujer [que **compró**   un libro].
       to.buy   know.1SG to a   woman   that bought.3SG the book
       'As for buying, I know a woman who bought the book.'

  b. * **Comprar**, fui   al   cine   [después de **comprar** un libro].
       to.buy   went.1SG to.the cinema after   of to.buy   the book
       'As for buying, I went to the cinema after buying the book.'

  c. * **Comprar**, [que Cosmo **compre**   un libro] sorprendió   a todos.
       to.buy   that Cosmo bought.3SG a book surprised.3SG to everybody
       'As for buying, Cosmo buying a book surprised everybody.'

  d. * **Comprar**, Eliana [vendió   una revista   y **compró**   un libro].
       to.buy   Eliana sold.3SG a   magazine and bought.3SG a book
       'As for buying, Eliana sold a magazine and bought a book.'

  e. ?? **Comprar**, escuché   [el rumor de que Eliana **compró**   un libro].
       to.buy   heard.1SG   the rumour of that Eliana bought.3SG a book
       'As for buying, I heard the rumour that Eliana bought a book.'

This line of analysis has been very influential, and it has been used to support a number of theoretical claims on how *Chain Reduction* (Nunes 2004) and other mechanisms related to movement chains work (e.g., Trinh 2009, Hein 2017).

┌─ **Today's presentation** ─────────────────────────────────────┐
│   │
│ ➔ A number of patterns are problematic for a movement-based analysis of predicate │
│   doubling.   │
│ ➔ PREDICATE 1 functions as a *Contrastive Topic*.   │
│ ➔ Base-generation of PREDICATE 1 coupled with Büring's (2003) account of con- │
│   trastive topics derives the most salient properties of the construction. │
│   │
└───┘

2 Spanish predicate doubling is not about copying

2.1 Predicate doubling without c-command

As Zubizarreta (1999) and others point out, *hanging topics* in Spanish may be introduced by prepositional markers such as *con respecto a* 'with respect to' or *en cuanto a* 'as for'.

(8)   Con respecto a la cena, voy   a preparar-la temprano.
      with respect   to the dinner go.1SG to prepare-it   early
      'As for dinner, I'll prepare it early.'

PREDICATE 1 in predicate doubling constructions may also be introduced by these preposi-tional expressions.

(9) a.   Con respecto a **comprar**, **compré**   un auto.
         with respect to to.buy   bought.1SG a   car
         'As for buying, I bought a car.'

  b.   Con respecto a **comprar el auto**, ya   lo **compré**
       with respect   to to.buy   the car   already it bought.1SG
       'As for buying the car, I bought it already.'

  c.   Con respecto a **comprar el auto**, efectivamente pude   **comprar el**
       with respect   to to.buy   the car   effectively   could.1SG to.buy   the
       auto
       car
       'As for buying the car, I was indeed able to buy the car.'

For this to be possible, PREDICATE 1 must occupy a position within the left-peripheral PP. Since **there is no c-command relation between both predicates** in this configuration, maintaining that both elements form a chain becomes quite difficult.

(10)
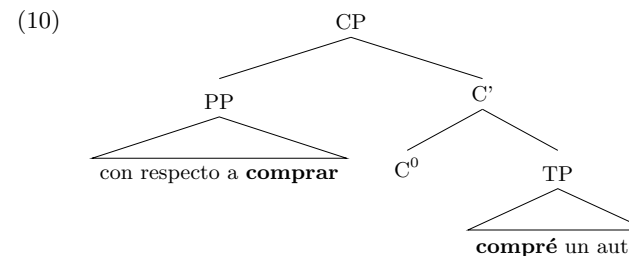
Using prepositional expressions as *con respecto a* 'with respect to' allows locating PREDICATE 2 inside an embedded clause.

(11) a.   Con respecto a **comprar**, Cosmo dice que Eliana **compró**   un libro.
         with respect to to.buy   Cosmo says that Eliana bought.3SG the book
         'As for buying, Cosmo says that Eliana bought a book.'

  b.   Con respecto a **comer**, quiero   **comer** pizza.
       with respect   to to.eat   want.1SG to.eat   a   pizza
       'As for eating, I want to eat a pizza.'

However, **the construction is still sensitive to island effects** as a comparison between (7) and (12) reveals.

(12) a. * Con respecto a **comprar**, conozco   a una mujer [que **compró**   un
         with respect   to to.buy   know.1SG to the woman   that bought.3SG the
         libro].
         book
         'As for buying, I know the woman who bought the book.'

  b. * Con respecto a **comprar**, fui   al   cine   [después de **comprar**
        with respect   to to.buy   went.1SG to.the cinema after   of to.buy
        un libro].
        the book
        'As for buying, I went to the cinema after buying the book.'

c. * Con respecto a **comprar**, [que Cosmo **compre** un libro] sorprendió
with respect to to.buy that Cosmo bought.3SG a book surprised.3SG
a todos.
to everybody
'As for buying, Cosmo buying a book surprised everybody.'

d. * Con respecto a **comprar**, Eliana [vendió una revista y **compró**
with respect to to.buy Eliana sold.3SG a magazine and bought.3SG
un libro].
a book
'As for buying, Eliana sold a magazine and bought a book.'

e. ?? Con respecto a **comprar**, escuché [el rumor de que Eliana
with respect to to.buy heard.1SG the rumour of that Eliana
compró un libro].
bought.3SG a book
'As for buying, I heard the rumour that Eliana bought a book.'

In a nutshell:

✓ Instances of predicate doubling introducing prepositional topic markers do not seem to involve syntactic movement.
✓ These constructions are subject to the same locality conditions observed with 'standard' predicate doubling.
✓ Locality restrictions in predicate doubling constructions are independent from syntactic movement.

2.2 Predicate doubling in Spanish is not restricted to infinitives

Vicente (2009: 165) points out that the verb in PREDICATE 1 cannot surface as finite.

(13) * **Leyó**, Juan **leyó** el libro.
read.3SG Juan read.3SG the book
Lit: 'Read, Juan read the book.'

However, this observation must qualified: finite verbs are banned from PREDICATE 1 **only if they are not accompanied by an overt complementizer**. This is shown in the examples in (14).

(14) a. Que **compró** el auto, lo **compró**.
that bought.3SG the car it bought.3SG
Lit: 'That bought the car, she/he bought it.'

b. Que **llegué**, **llegué**
that arrived.1SG arrived.1SG
Lit: 'That I arrived, I arrived.'

c. Que **leyó** el libro, Juan **leyó** el libro.
that read.3SG Juan read.3SG the book
*Lit:* 'That he read the book, Juan read the book.'

The sentences in (14) show against (5) that the fronted verb is not always a complex head $[_{v^0} V^0 v^0]$ that receives infinitival morphology by default.

It could be argued, however, that these sentences involve movement and multiple spell-out of a complex head $[_{T^0} [_{v^0} V^0 v^0] T^0]$, as sketched in (15).

(15)
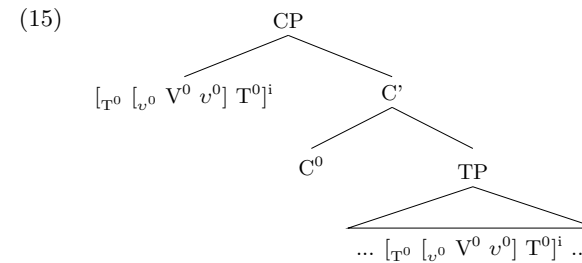
However such an analysis would incorrectly predict the acceptability of (13), and would also fail at capturing the obligatoriness of the overt complementizers in (14).

The most straightforward analysis is that PREDICATE 1 is part of an independent CP projection that is merged in the left periphery of the matrix structure (cf. 16).

(16)
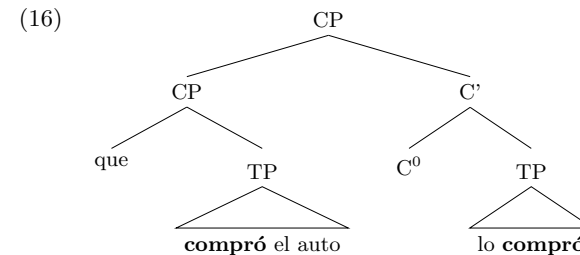
This analysis is supported by the fact that the fronted CP may appear as a complement of a prepositional expression like *con respecto a* 'with respect to'.

(17) Con respecto a (que) si **compró** el auto, lo **compró**.
with respect to that if bought.1SG the car it bought.1SG
'As for whether she/he bought the car, she bought it.'

Moreover, the analysis in (16) allows capturing another property of finite predicate doubling. Contrary to "standard" non-finite predicate doubling, negation may appear together with finite verbs in PREDICATE 1.

(18) a. * No comprar el auto, no lo compró.
not to.buy the car not it bought.3SG
'As for not buying the car, he didn't buy it.'

b. Que no compró el auto, no lo compró.
that not bought.3SG the car not it bought.3SG
'As for not buying the car, he didn't buy it.'

This follows if, as Laka (1990) proposes, the polarity head Σ^0 in Spanish is generated in a position between the CP and TP projections.

(19)
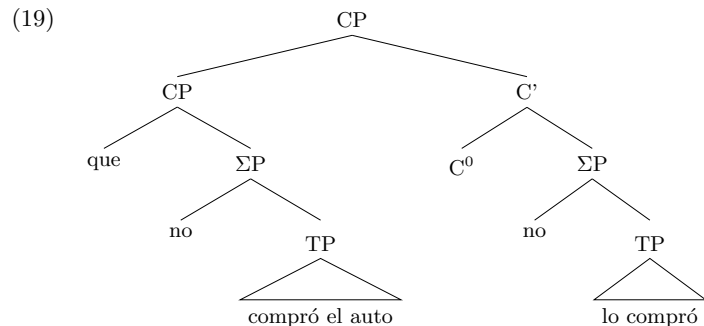
If "standard" non-finite predicate doubling involves a φ-defective TP projection in PREDICATE 1, the lack of negation is accounted for, as shown in (20).

(20)
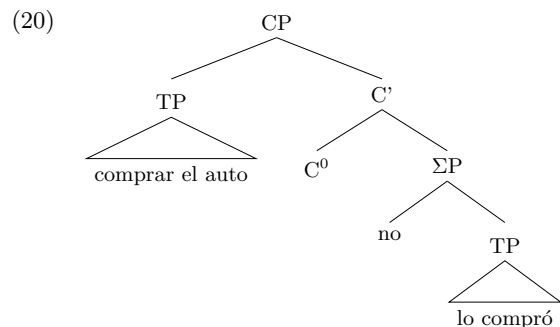
As with standard instances of predicate doubling, PREDICATE 2 may appear inside an embedded clause in cases of finite predicate doubling.

(21) Que **compró**   el   auto, sé   que lo **compró**.
that bought.3SG the car   know.1SG that it bought.3SG
'As for her/him buying the car, she/he bought it.'

However, the construction is still sensitive to island effects.

(22) a. * Que **compró**   el   libro, conozco a una mujer [que lo **compró**].
that bought.3SG the book know.1SG to a   woman   that it bought.3SG
'As for buying the book, I know a woman who bought it.'

     b. * Que **compró**   el   libro, fui   al   cine   [después de que ella lo
that bought.3SG the book went.1SG to.the cinema   after   of that she it
compró].
bought.3SG
'As for buying the book, I went to the cinema after she bought it.'

     c. * Que **compró**   el   libro, [que Cosmo lo **compró**]   es un hecho.
that bought.3SG the book   that Cosmo it bought.3SG is a   fact
'As for buying the book, that Cosmo bought it is a fact.'

     d. * Que **compró**   el   libro, Eliana [vendió   una revista   y   lo
that bought.3SG the book Eliana sold.3SG a   magazine and it
compró].
bought.3SG
'As for buying the book, Eliana sold a magazine and bought it.'

     e. ?? Que **compró**   el   libro, escuché   [el   rumor   de que Eliana lo
that bought.3SG the book heard.1SG   the rumour of that Eliana it
compró].
bought.3SG
'As for buying the book, I heard the rumour that Eliana bought it.'

Therefore, finite predicate doubling constitutes **another instance of predicate doubling for which a movement account does not seem to be tenable**, despite the fact the construction exhibits constraints that are reminiscent of those attested in A'-movement.

2.3   Predicates are related through anaphora, not identity

According to Copy Theory, **if α and β are members of a the same movement chain, then α and β must be isomorphic**.

(23) a. [$_{v^0}$ **Comprar**], pude   [$_{v^0}$ **comprar**] un auto.
to.buy   could.1SG   to.buy   a car
'As for buying, I was able to buy a car.'

     b. [$_{vP}$ **Comprar un auto**], pude   [$_{vP}$ **comprar un auto**].
to.buy   a   car   could.1SG   to.buy   a   car
'As for buying a car, I was able to buy a car.'

However, as Saab (2017) points out, **both predicates are not required to be isomorphic**. In particular, DPs in PREDICATE 1 are usually doubled by anaphoric elements in PREDICATE 2, e.g., clitics (24a), strong pronouns (24b), or epithets (24c).

(24) a. [**Comprar el auto**], puedo   [**comprar-lo**]
to.buy   the car   could.1sg to.buy-it
'As for buying a car, I can buy it.'

     b. [**Hablar con Cosmo**], puedo   [**hablar con él**]
to.talk with Cosmo   could.1sg to.talk with he
'As for talking to Cosmo, I can talk to him.'

     c. [**Hablar con Cosmo**], puedo   [**hablar con ese idiota**]
to.talk with Cosmo   could.1sg to.talk with that idiot
'As for talking to Cosmo, I can talk to that idiot.'

Moreover, Saab observes that **these anaphoric expressions behave exactly as if they were referring to a previously mentioned definitive DP in a different sentence**.

(25) Finalmente compré   **el auto^i**. **Lo^i** compré   ayer.
      finally   bought.1SG the car   it   bought.1SG yesterday
      'I finally bought the car. I bought it yesterday.'

For instance, Spanish allows null pronominal objects when their antecedent is indefinite.

(26) A. Compraste cerveza^i?
          bought.2SG beer
          'Did you buy beer?'
      B. Si, compré $\emptyset^i$ ayer.
          yes bought.1SG   yesterday
          'Yes, I bought (beer) yesterday.'

The same pattern is attested in predicate doubling constructions.

(27) Comprar cerveza^i, compré $\emptyset^i$ ayer
      to.buy   beer   bought.1SG   yesterday
      'As for buying beer, I bought (beer) yesterday.'

Indefinite null objects may have certain modifiers, e.g., adjectives, quantification.

(28) A. Preferís   cerveza^i belga   o irlandesa?
          prefer.2SG beer   Belgian or Irish
          'Would you prefer Belgian or Irish beer?'
      B. Prefiero $\emptyset^i$ belga.
          prefer.1SG   Belgian
          'I prefer Belgian (beer).'

(29) A. Comés   pescado^i?
          eat.2SG fish
          'Do you eat fish?'
      B. Como   poco $\emptyset^i$.
          eat.1SG few
          'I eat a little.'

Once again, predicate doubling replicates the anaphoric pattern.

(30) a. **Tomar cerveza^i**, **tomo** $\emptyset^i$ belga
          to.drink beer   drink.1SG   Belgian
          'As for drinking beer, I drink Belgian (beer).'
      b. **Comer pescado**, **como**   poco $\emptyset^i$
          to.eat   fish   eat.1SG few
          'As for eating fish, I eat a little bit.'

The relation between members of a chain under Copy Theory involves a formal criterion of *identity* or *non-distinctiveness* (Chomsky 1995, Nunes 1995, 2004, i.a.). As Saab (2017) points out, verbal duplicates in predicate doubling (i) are related through anaphora, and (ii) are not required to be formally identical.

2.4 Reconstruction

If PREDICATE 1 and PREDICATE 2 are related through movement, then PREDICATE 1 should be able to be interpreted in the position of PREDICATE 2 via reconstruction; remember that **displaced predicates always reconstruct** (Heycock 1995).

As shown in (31), predicate doubling exhibits an amelioration effect on simple sentences violating Condition C.

(31) a. * Él$_i$ saluda   a   la madre de Cosmo$_i$ en la iglesia siempre.
            he greet.3SG DOM the mother of Cosmo in the church always
            Lit: 'He$_i$ always greets Cosmo$_i$'s mother in the church.'
      b. ? **Saludar a   la madre de Cosmo$_i$ en la iglesia**, él$_i$ **la saluda**
            to.greet DOM the mother of Cosmo in the church   he her greet.3SG
            siempre.
            always
            'As for greeting Cosmo$_i$'s mother in the church, he always greets her.'

This effect is further increased with subordinate clauses: they do not seem to exhibit any grammatical deviation.

(32) a. * Supuse   que al   menos él$_i$ querría   saludar a   la madre de
            supposed.1SG that to.the less   he would.want to.greet DOM the mother of
            Cosmo$_i$.
            Cosmo
            'I supposed that at least he$_i$ would want to greet Cosmo$_i$'s mother.'
      b. **Saludar a   la madre de Cosmo$_i$**, supuse que   al   menos
            to.greet DOM the mother of Cosmo   su   supposed.1SG that to.the
            él$_i$ querría **saludar-la**.
            less he   would.want to.greet-her
            As for greeting Cosmo$_i$'s mother, I supposed that at least he$_i$ would want to greet her.'

(33) a. * Él$_i$ sabe   que amo   a   Jorge$_i$.
            he knows.3SG that love1SG DOM Jorge
            'He$_i$ knows that I love Jorge$_i$.'
      b. **Amar a   Jorge$_i$**, él$_i$ sabe   que **lo amo**.
            to.love DOM Jorge   he knows.3SG that him love1SG
            'As for loving Jorge$_i$, he$_i$ knows I love him.'

Patterns involving reconstruction for Condition A suggest a similar conclusion.

(34) a. Jorge$_i$ vio   la foto de sí mismo$_i$.
          Jorge saw.3SG the photo of himself
          'Jorge$_i$ saw the picture of himself$_i$.'
      b. ?? Ver   la foto de sí mismo$_i$, Jorge$_i$ la vio.
             to.see the photo of himself,   Jorge it saw
             'As for seeing the photo of himself$_i$, Jorge$_i$ saw it.'

(35)   a.   Creo   que Jorge$_i$ vio   la   foto   de sí mismo$_i$.
            believe.1SG that Jorge saw3SG the photo of himself
            'I believe that Jorge$_i$ saw the picture of himself$_i$.'

      b.   ?? Ver   la   foto   de sí mismo$_i$, creo   que Jorge$_i$ la vio.
            to.see the photo of himself   believe.1SG that Jorge it saw.3SG
            'As for seeing the photo of himself$_i$, I believe Jorge saw it.'

These examples contrast sharply with the full acceptability of the sentences in (36).

(36)   a.   Qué foto   de sí mismo$_i$ vio Jorge$_i$ ~~qué~~ ~~foto~~ ~~de sí mismo$_i$~~?
            what photo of himself$_i$ saw Jorge what photo of himself
            'Which picture of himself$_i$ did Jorge see.'

      b.   Qué foto   de sí mismo$_i$ crees   que vio   Jorge$_i$ ~~que~~ ~~foto~~ ~~de~~
            what photo of himself   believe.2SG that saw.3SG Jorge what photo of
            ~~sí mismo$_i$~~?
            himself
            'Which picture of himself$_i$ do you believe that Jorge$_i$ saw?'

These data points strongly suggest that there is no reconstruction in Spanish predicate doubling, which further undermines the hypothesis that the construction is derived through movement.

3   A base-generation analysis of predicate doubling

The data discussed in the previous section leads to an analysis in which there is no movement-based relation between PREDICATE 1 and PREDICATE 2. Therefore, we assume that **the verbs in the construction are independently generated**.

(37)
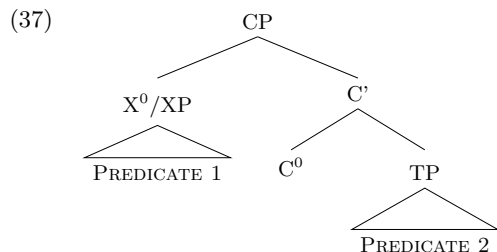
In this representation:

➔ X^0 stands for an infinitive, i.e., a φ-defective complex head $[_{T^0}[_{v^0} \; V^0 \; v^0 \;] \; T^0]$.[1]

➔   XP stands for either an infinitival TP, e.g., (2), a PP, e.g., (9), or a finite CP, e.g., (14), that contains a predicate.

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[1]It could also be assumed that these are complex v^0 heads that receive infinitival morphology by default, as proposed by Vicente. We adopt an analysis of infinitives as defective T^0 for the sake of simplicity.

If PREDICATE 1 and PREDICATE 2 are not copies, there must be an independent explanation for the unacceptability of the examples in (38) and the island effects in (7).

(38)   a.   * Comprar, tomó   cerveza.
            to.buy   drink.3SG beer
            'As for buying, she/he drinks beer.'

      b.   * Comprar un auto, pude   comprar una moto.
            to.buy   a   car   could.1SG to.buy   a   motorcycle
            'As for buying a car, I bought a motorcycle.'

We propose that such a requirement follows straightforwardly from the discourse function of PREDICATE 1.

(39)   PREDICATE 1 is a base-generated contrastive topic.

Our account of the properties of predicate doubling in Spanish is based on Büring's (2003, 2016) treatment of contrastive topics.

3.1   Contrastive topics

Büring (2003) assumes a hierarchical model of discourse (e.g., Roberts 1996) that can be represented through *discourse trees* as (40).

(40)
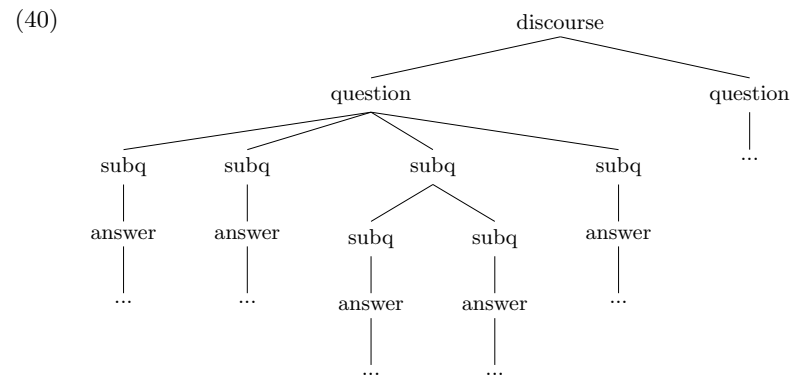
(41)   a.   The nodes in the discourse tree are **_phrase markers_** representing interrogative or declarative sentences.

      b.   A question denotes the set of its possible answers, represented as its daughters nodes in a discourse tree.

      c.   The acceptability of a statement is defined in terms of whether it addresses its *Question Under Discussion* (QUD), represented as a mother node in a discourse tree.

According to Büring, whereas focus relates a declarative sentence to a set of alternative propositions, **_a contrastive topic relates a sentence to a set of alternative questions (a set of sets)_**.

A declarative sentence like (42a) answers the implicit/explicit question in (42b), which has the set of possible answers depicted in (42c).

(42) a. Cosmo bought a CAR_F.
      b. What did Cosmo buy?
      c. $[\![(42a)]\!]^f \approx$ {Cosmo bought a car, Cosmo bought a book, ...}

This information can be captured in the discourse tree in (43).

(43)   What did Cosmo buy?

      Cosmo bought a car   Cosmo bought a book   Cosmo bought ...
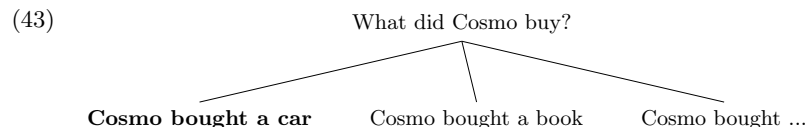
Note that the assumption in (41a) ensures that the set of alternatives contains grammatical sentences only, i.e., there are no word-salad alternatives.

Consider now the dialogue in (44). The answer in (44B) suggests a continuation in which other people ate other things, e.g., *... Mary ate the eggplant, George ate the tuna*, and so on.

(44) A: What did you people eat?
      B: Well, $FRED_{CT}$ ate the $BEANS_F$.

In Büring's terms, this "continuation effect" indicates the presence of a complex discourse structure. To derive it, he proposes a two-step process.[2]

(45) CT-Value formation (Büring 2003: 519)
      a. Replace the focus with a wh-word and front the latter; if focus marks the finite verb or negation, front the finite verb instead.
      b. Form a set of questions from the result of (45a) by replacing the contrastive topic with some alternative to it.

Applied to the sentence in (44b), this process yields (i) the QUD (46a), and the set of its alternative questions (46b).

(46) $FRED_{CT}$ ate the $BEANS_F$.
      a. $FRED_{CT}$ ate the what? $\longrightarrow$ What did $FRED_{CT}$ eat?
      b. What did x_{CT} eat? $\longrightarrow$ {What did Fred eat?, What did Mary eat?, ...}

Büring (2003) calls this set the *CT-value* of the expression in (44).

(47) $[\![(44)]\!]^{ct} \approx$ {What did Fred eat?, What did Mary eat?, ...}

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[2]In this presentation, we stick to Büring's definition of CT-Value Formation, but some modification may be required for its extension to Spanish and doubling phenomena in general.

This can be represented as a discourse tree, in which all the alternative questions in (47) function as subquestions conspiring to answer a "bigger question", e.g., *who ate what?*

(48)   ...

      What did Fred eat?   What did Mary eat?   What did ...

      $FRED_{CT}$ ate the $BEANS_F$ $MARY_{CT}$ ate the $EGGPLANT_F$ ...
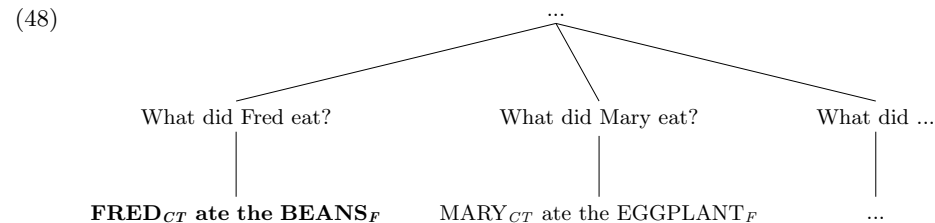
Since contrastive topics introduce a set of alternative questions, it follows that they can be used only in discourses in which there is at least one alternative available to the immediate QUD.

(49) CT-Congruence (simplified version)
      $[\![U]\!]^{ct}$ must contain at least two alternative questions.

3.2 The information structure of predicate doubling

Vicente (2007) observes that predicate doubling constructions have a *verum focus* interpretation, i.e., they emphasize the positive polarity of a proposition in contrast to a different proposition.

(50) Cosmo SÍ compró   el auto, pero perdió el regístro.
      Cosmo yes bought.3SG the car, but lost.3SG the license
      'Cosmo did buy the car, but he lost his license'.

(51) **Comprar el auto**, **lo COMPRÓ**, pero perdió el regístro.
      to.buy   the car,   it bought.3SG, but lost.3SG the license
      'As for buying the car, she/he DID buy it, but she/he lost his license'.

Verum focus is not a defining component of the construction. As observed by Muñoz Pérez (2017), predicate doubling allows focusing elements other than the polarity of the proposition.

(52) a. **Comprar**, **compré**   EL AUTO, no la moto.
          to.buy   bought.1sg the car,   not the motorcycle
          'As for buying, I bought THE CAR, not the motorcycle.'
      b. **Hablar**, **hablé**   con COSMO, no con Eliana.
          to.talk   talked.1sg with Cosmo, not with Eliana
          'As for talking, I talked to COSMO, not to Eliana.'
      c. **Comprar**, **compró**   COSMO el asado, no yo.
          to.buy   bought.3sg Cosmo the meat, not I
          'As for buying, COSMO bought the meat, not me.'

Clause internal constituents may be focalized **only if they are not doubled in the left periphery**.

(53) a. * **Comprar el auto**, **compré** **EL AUTO**, no la moto.
     to.buy   the car   bought.1sg the car,   not the motorcycle
     'As for buying the car, I bought THE CAR, not the motorcycle.'

   b. * **Hablar con Cosmo**, **hablé**   **con COSMO**, no con Eliana.
      to.talk with Cosmo   talked.1sg with Cosmo,   not with Eliana
      'As for talking with Cosmo, I talked to COSMO, not to Eliana.'

   c. * **Comprar Cosmo**, **compró**   **COSMO** el asado, no yo.
      to.buy   Cosmo   bought.3sg Cosmo   the meat, not I
      'As for Cosmo buying, COSMO bought the meat, not me.'

The only exception to this condition involves verum focus interpretation as in (54a). If PREDICATE 1 and PREDICATE 2 coincide (i.e., they are either isomorphic, or there is an anaphoric element in PREDICATE 2 for every DP in PREDICATE 1), **the only interpretation that is available is that of verum focus**.

(54) a. **Comprar el auto**, **COMPRÉ el auto**, pero perdí   el registro.
     to.buy   the car   bought.1sg the car,   but lost.1sg the license
     'As for buying the car, I DID buy the car, but I lost my license.'

   b. **Comprar el auto**, PUDE   **comprar-lo**, pero perdí   el registro.
      to.buy   the car   could.1sg to.buy-it,   but lost.1sg the license
      'As for buying the car, I COULD have bought it, but I lost my license.'

The same applies to cases of "finite" predicate doubling as those discussed in (14): they can only have a verum focus interpretation.

(55) a. Que **compró**   el auto, lo **COMPRÓ**.
     that bought.3SG the car   it bought.3SG
     'As for her/him buying the car, she/he bought it.'

   b. Que **llegué**,   **LLEGUÉ**
      that arrived.1SG arrived.1SG
      'As for me arriving, I arrived.'

   c. Que **leyó**   **el libro**, Juan **LEYÓ** el libro.
      that read.3SG Juan read.3SG the   book
      'As for reading, Juan read the book.'

Predicate doubling constructions involve a similar discourse structure to that discussed with respect to (44B), as they also introduce two series of variables: one related to a verb/predicate, and one to the focused constituent.

Consider the dialogue (56). The answer in (56B) suggests a continuation in which something else but reading was done with the magazine, e.g., *and the magazine, he just looked at it*.

(56) A: Qué leyó   Jorge? El libro o la revista?
     what read.3SG Jorge   the book or the magazine
     'What did Jorge read? The book or the magazine?'

B: **LEER**$_{CT}$, Jorge **leyó**   el LIBRO$_F$.
   to.read   Jorge read.3SG the book
   'As for reading, Jorge read the book.'

The dialogue in (57) introduces the same effect, but with verum focus. The answer in (57B) suggests continuation involving a distinct predicate, e.g., *but he forgot his homework*; in fact, the most natural response to (57B) by speaker A is something like *but what?*

(57) A: Leyó   el libro Jorge?
     read.3SG the book Jorge
     'Did Jorge read the book?'

   B: **LEER EL LIBRO**$_{CT}$, Jorge lo **LEYÓ**$_F$.
      to.read the book   Jorge it read.3SG
      'As for reading the book, Jorge did read it.'

Given these interpretative effects and the fact that it can be accompanied by topical markers such as *con respecto a* 'as for' (9), we conclude that PREDICATE 1 is a contrastive topic.[3]

The information structure of the Spanish predicate doubling construction can be summarized as in (58).

(58) [CONTRASTIVE TOPIC], [$_{CLAUSE}$ ... FOCUS ...]
         PREDICATE 1

3.3   The analysis

We take that PREDICATE 1 has two main functions as a contrastive topic.

✓ It makes explicit (part of) the immediate QUD.
✓ It signals the presence of a complex discourse structure by introducing a set of alternative questions.

Consider as a first example the sentence with narrow focus in (56B), repeated in (59).

(59) LEER$_{CT}$, Jorge leyó   el LIBRO$_F$.
     to.read   Jorge read.3SG the book
     'As for reading, Jorge read the book.'

To calculate the CT-value of this sentence, the process in (45) needs to apply. First, the QUD is obtained by replacing the focused constituent with a wh-pronoun.[4]

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[3]The observation that predicate doubling signals a contrastive topic has been made for other languages: see Aboh & Dyakonova (2009) for Russian, and Jo (2013) for Korean, among others. These authors, however, adopt a movement-based analysis.

[4]The CT-Value Formation algorithm in (45) requires a slight modification to derive the right result in cases of contrastive topics involving some form of doubling. As a working solution, we propose the following addendum.

(i) If the CT-marked constituent is outside the clause, replace with it its correlate within the clause in order to form the QUD.

This is required for cases as (ii), for which the two-step process in (45) proceeds as follows.

(ii) As for COSMO$_{CT}$, he read the BOOK$_F$.

(60) LEER$_{CT}$, Jorge leyó qué ⟶ Qué leyó$_{CT}$ Jorge?
(As for reading), Jorge read what ⟶ What did Jorge read?

Then a set of alternative questions is formed by replacing the contrastive topic.

(61) Qué *X* Jorge? ⟶ {qué leyó Jorge?, qué miró Jorge?, ... }
*what did Jorge X ⟶ {What did Jorge **read**?, What did Jorge look at?, ... }*

This derives the "continuation effect" attested in (57). The result can be schematized in a discourse tree as follows.

(62)

LEER$_{CT}$, Jorge leyó el LIBRO$_F$ / *As for reading, Jorge read the book* — Qué leyó Jorge? / *What did Jorge read?*
Jorge miró la REVISTA$_F$ / *Jorge looked at the magazine* — Qué miró Jorge? / *What did Jorge look at?*
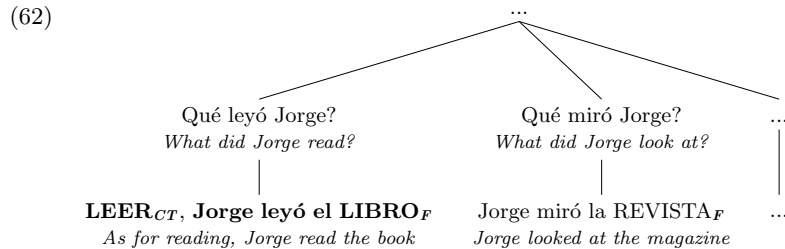
As for doubling with verum focus, consider again the sentence in (57B), repeated in (63).

(63) **LEER EL LIBRO**$_{CT}$, Jorge lo **LEYÓ**$_F$.
to.read the book   Jorge it read.3SG
'As for reading the book, Jorge read it.'

Once again, the CT-value is calculated by appealing to CT-Formation in (45). We assume (for simplicity, mostly) that anaphoric elements within the clause get replaced by their antecedents when forming the QUD.

(64) LEER EL LIBRO$_{CT}$, leyó el libro Jorge ⟶ Leyó$_{CT}$ el libro Jorge?
(As for reading the book), did Jorge read the book ⟶ Did Jorge read the book?

As a second step, a set of alternative questions is formed by replacing the contrastive topic.

(65) *R(x)* Jorge? ⟶ {Leyó el libro Jorge?, Olvidó la tarea Jorge?, ... }
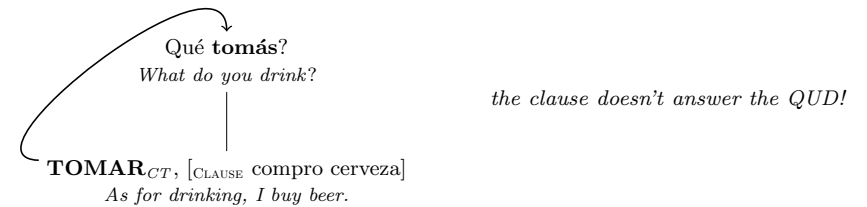*Did Jorge R(x) ⟶ {Did Jorge read the book?, Did Jorge forget the homework?, ... }*

This once again derives the "continuation effect" attested in (57). The result can be schematized in a discourse tree as follows.

(66)

---

a. As for COSMO$_{CT}$, he read what? ⟶ What did COSMO$_{CT}$ read?
b. What did x_{CT} read? ⟶ {What did Cosmo read?, What did George read?, ...}

Leyó el libro Jorge? / *did Jorge read the book?*
LEER EL LIBRO$_{CT}$, **Jorge lo LEYÓ**$_F$ / *As for reading the book, Jorge did read it*
Olvidó la tarea Jorge? / *Did Jorge forget the homework?*
Jorge OLVIDÓ$_F$ la tarea / *Jorge forgot the homework*
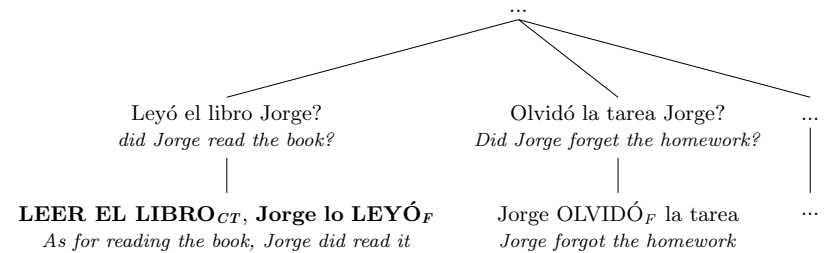
This line of analysis provides a straightforward and simple account of the lexical identity requirement holding between PREDICATE 1 and PREDICATE 2, e,g,, (38a).

(67) PREDICATE 1 makes explicit part of the the immediate QUD

Qué **tomás**? / *What do you drink?*
TOMAR$_{CT}$, [$_{CLAUSE}$ compro cerveza] / *As for drinking, I buy beer.*
the clause doesn't answer the QUD!

The account also provides an explanation for island restrictions. Consider again the unacceptable sentence in (7a), repeated in (68).

(68) *COMPRAR$_{CT}$, conozco a una mujer [que compró un LIBRO$_F$].
to.buy   know.1SG to a woman that bought.3SG the book
'As for buying, I know a woman who bought the book.'

As discussed, to form the QUD of this question, the focused constituent *un libro* 'the book' must be replaced with a wh-pronoun to form a wh-question. However, since the focus is within a relative clause, the QUD cannot be formed.

(69) *Qué conozco a una mujer [que compró ~~qué~~].
to.buy know.1SG to a woman that bought.3SG the book
'As for buying, I know a woman who bought the book.'

Thus, the doubling pattern in (68) is unacceptable because (i) it answers no QUD, and (ii) all alternative questions that could be evoked by it are ungrammatical, i.e., they all have the structure of (69).

This accounts for pairs that are mysterious under a movement-based analysis of predicate doubling, e.g., (70).

(70) a. LEER$_{CT}$, leí el LIBRO$_F$ [que me regaló mi novia].
to.read read.1SG the book that to.me gave.3SG mi girlfriend
'As for reading, I read the BOOK that my girlfriend gave me.'

b. ?? LEER$_{CT}$, leí　　　el libro [que me　　regaló　　mi NOVIA$_F$].
　　to.read　　read.1SG the book　that to.me gave.3SG mi girlfriend
　　'As for reading, I read the book that my GIRLFRIEND gave me.'

The account for island restrictions involving verum focus is somewhat different. Consider (71). To form its QUD, the focused verb *compró* 'bought' must move to the left of the sentence, cf. (45a). Since this is impossible, (71) answers no QUD and is, therefore, unacceptable.

(71)　* COMPRAR EL LIBRO$_{CT}$, conozco　a　　la　mujer　[que　lo COMPRÓ$_F$].
　　　　to.buy　　　　the book　　　know.1SG DOM the woman　that it bought.3SG
　　　　'As for buying the book, I know a woman who bought it.'

This explanation, however, has a problem: verb-movement to form YES/NO questions is constrained to a single clause, e.g., (72b).

(72)　a.　Sé　　　　que Eliana compró　　el　libro.
　　　　　know.1SG that Eliana bought.3SG the book
　　　　　'I know that Eliana bought the book.'

　　　b.　* Compró　sé　　　que Eliana ~~compró~~　el　libro?
　　　　　bought.3SG know.1SG that Eliana bought.3SG the book
　　　　　'As for buying the book, I know that Eliana bought it.'

Thus, it is wrongly predicted that predicate doubling with verum focus cannot be obtained with embedded clauses.

(73)　COMPRAR EL LIBRO$_{CT}$, sé　　　que Eliana lo COMPRÓ$_F$.
　　　to.buy　　　　the book　　know.1SG that Eliana it bought.3SG
　　　'As for buying the book, I know that Eliana bought it.'

As a work in progress solution, we observe that predicate doubling with embedded verum focus only occurs with embedding verbs that can be interpreted parenthetically, e.g., *saber* 'know', *pensar* 'think', *decir* 'say' (Simons 2007).

(74)　A: Compró　　el　libro Eliana?
　　　　bought.3SG the book Eliana
　　　　'Did Eliana buy the book?'

　　　B: (COMPRAR EL LIBRO), sé　　　que lo compró.
　　　　to.buy　　　　the book　　know.1SG that it bought
　　　　'As for buying the book, I know that she bought it.'

For concreteness, we make the following assumption.

(75)　CT-value Formation can ignore parenthetical embedding predicates.

By adopting (75), the CT-value for a complex sentence like (73) yields a set of simple interrogative questions.

(76)　$[\![(73)]\!]^f \approx$ {Compró el libro Eliana?, Pagó la tarjeta Eliana?, ...}

The assumption in (75) does not apply to the structures that introduce syntactic islands. For instance, the verb *conocer* 'know' in (71) cannot be interpreted parenthetically.

(77)　A:　Compró　　el　libro la　　mujer?
　　　　　bought.3SG the book Eliana
　　　　　'Did Eliana buy the book?'

　　　B:　# Conozco a　　la mujer　que lo compró.
　　　　　know.1SG that it bought
　　　　　'As for buying the book, I know that she bought it.'

Therefore, CT-value formation in (45) is still not able to form a QUD for (71).

4　Further predictions

4.1　Genus-species splits

Patterns like (78) are problematic for a movement-based analysis, as PREDICATE 1 and PREDICATE 2 are different.

(78)　a.　**Comer pescado**, **como　ATÚN**.
　　　　　to.eat　fish　　　eat.1SG tuna
　　　　　'As for eating fish, I eat TUNA.'

　　　b.　**Leer　libros**, **leo　　　NOVELAS**.
　　　　　to.read books　read.1SG novels
　　　　　'As for reading books, I read NOVELS.'

Notice that the inverse pattern is unacceptable.

(79)　a.　* **Comer atún**, **como　PESCADO**.
　　　　　to.eat　tuna　eat.1SG fish
　　　　　'As for eating tuna, I eat fish.'

　　　b.　* **Leer　novelas**, **leo　　　LIBROS**.
　　　　　to.read books　　read.1SG novels
　　　　　'As for reading books, I read NOVELS.'

We maintain that this pattern follows from *givenness-marking*: at making the QUD explicit, PREDICATE 1 can mark as given the constituents within PREDICATE 2. The reason why the sentences in (78) are acceptable is that (i) *atún* 'tuna' and *novelas* 'novels' are not given (and thus can carry the focus), and (ii) they successfully address the QUD.

We adopt the following definition of Givenness.

(80)　Givenness (Büring 2013: 875)
　　　An expression E is given in a context C if there is a synonym or hyponym A to E such that the meaning of A is salient in C.

The givenness relations between hyponym and hyperonym can be understood as in (81), where underlined elements are given.

(81) a. HYPONYM$_{\{+A, +B, +C, +D\}}$ $\longrightarrow$ HYPERONYM$_{\{\underline{+A}, \underline{+B}\}}$ *given*
      b. HYPERONYM$_{\{+A, +B\}}$ $\longrightarrow$ HYPONYM$_{\{\underline{+A}, \underline{+B}, +C, +D\}}$ *just "partially" given*

For instance, in (82a), the noun *pescado* 'fish' cannot be focused as it is marked as given by the noun *atún* 'tuna'; in (82b), the verb *gusta* 'like' can be focused as the noun *pescado* 'fish' is given.

(82) a. # Quiero   comer atún porque siempre <u>como</u>   PESCADO
             want.1SG to.eat tuna because always   eat.1SG fish
             'I want to eat tuna because I always eat FISH.'
      b.   Quiero   comer atún porque <u>me</u>   GUSTA <u>el   pescado</u>.
             want.1SG to.eat tuna because 1SG.DAT like   the fish
             'I want to eat tuna because I LIKE fish.'

Certain speakers do not accept easily the kind of doubling exemplified in (78). In these cases, the acceptability of the sentences improves significantly when the focus particle *solo* 'only' is introduced.

(83) a. Comer pescado, como   **solo** ATÚN.
             to.eat fish   eat.1SG only tuna
             'As for eating fish, I eat only TUNA.'
      b. Leer   libros, leo   **solo** NOVELAS
             to.read books read.1SG only novels
             'As for reading books, I read only novels.'

4.2 Asymmetries with factive clauses

Predicate doubling with a verum focus interpretation exhibits an asymmetry regarding factive clauses: while it is possible to double a verb appearing in a complement clause embedded under a cognitive factive predicate, it is unacceptable with clauses selected by emotive factives.

(84) a. Leer,   sé   que leyó.
             to.read know.1SG that read3SG
             'As for reading, I know that he read.'
      b. * Leer,   lamento   que haya   leído.
             to.read regret.1SG that have.3SG read
             'As for reading, I regret that he read.'

A movement-based account fails to explain this asymmetry, as cognitive and emotive factives induce weak island effects in exactly the same way.

(85) a. ¿A quién sabés   que invitó   Juan a la fiesta?
             to who   know.2SG that invited3SG J.   to the party
             'Who do you know that Juan invited to the party?'

(85) b. * ¿Cómo sabés   que bailó   Juan?
             how   know.2SG that danced.3SG J.
             'How do you know that Juan danced?'

(86) a. ¿A quién lamentás que haya   invitado Juan a la fiesta?
             to who   know.2SG that have.3SG invited   J.   to the party
             'Who do you regret that Juan invited to the party?'
      b. * ¿Cómo lamentás que haya   bailado Juan?
             how   regret.2SG that have.3SG danced J.
             'How do you regret that Juan danced?'

The explanation for this pattern goes in the same line as that for (71). Cognitive factives like *saber* 'know' can be interpreted parenthetically (87), so they can be absent from the QUD, cf. (75).

(87) A: Compró   el libro Eliana?
             bought.3SG the book Eliana
             'Did Eliana buy the book?'
      B: (COMPRAR), sé   que lo compró.
             to.buy   know.1SG that it bought
             '(As for buying the book,) I know that she bought it.'

The CT-value for the predicate doubling pattern with the verb *saber* 'know' in (84a) is as follows.

(88) $[\![(84a)]\!]^f \approx$ {Compró el libro Eliana?, Pagó la tarjeta Eliana?, ...}

Emotive factives like *lamentar* 'regret' cannot be interpreted parenthetically (89), and therefore evoke a QUD that cannot be formed through fronting of the embedded verb.

(89) A: Compró   el libro Eliana?
             bought.3SG the book Eliana
             'Did Eliana buy the book?'
      B: # (COMPRAR), lamento   que lo comprara.
             to.buy   regret.1SG that it bought.3SG
             '(As for buying,) I regret that she bought the book.'

5 Concluding remarks

→ The standard approach to predicate doubling within the generative framework involves movement.

→ We provided a number of arguments showing that predicate doubling in Spanish is not derived through movement, i.e., PREDICATE 1 and PREDICATE 2 do not behave like copies.

→ Predicate doubling in Spanish serves a discourse function: PREDICATE 1 makes explicit the QUD, and introduces a complex discourse structure.

- ➔ A base-generation analysis of the construction together with Büring, Büring approach to contrastive topics allows to account for the main properties of the construction.

  - ✔ Lexical identity between the predicates is necessary to answer the QUD.

  - ✔ Island restrictions follow from movement constraints applying to the QUD and its alternatives.

- ➔ Asymmetries in the behaviour of factive verbs, and patterns of genus-species splits further support the analysis.

References

Abels, Klaus. 2001. The predicate cleft construction in Russian. In Steven Franks & Michael Yadroff (eds.), *Proceedings of formal approaches to Slavic linguistics*, vol. 9. 1–19. Bloomington, Indiana: Michigan Slavic Publications.

Aboh, Enoch O. & Marina Dyakonova. 2009. Predicate doubling and parallel chains. *Lingua* 119(7). 1035–1065. doi:10.1016/j.lingua.2008.11.004.

Büring, Daniel. 2003. On D-trees, beans, and B-accents. *Linguistics and Philosophy* 26. 511–545. doi:10.1023/a:1025887707652.

Büring, Daniel. 2013. Syntax, information structure, and prosody. In Marcel den Dikken (ed.), *The Cambridge handbook of generative syntax*, chap. 23. Cambridge: Cambridge University Press.

Büring, Daniel. 2016. (Contrastive) Topic. In Caroline Féry & Shinichiro Ishihara (eds.), *The Oxford handbook of information structure*, 64–85. Oxford: Oxford University Press. doi: 10.1093/oxfordhb/9780199642670.013.002.

Cho, Eun & Kunio Nishiyama. 2000. Yoruba predicate clefts from a comparative perspective. In Vicky Carstens & Frederick Parkinson (eds.), *Advances in African linguistics* (Trends in African Linguistics 4), 37–49. Trenton: Africa World Press.

Chomsky, Noam. 1995. *The minimalist program*. Cambridge, MA: MIT Press.

Hein, Johannes. 2017. Doubling and *do*-support in verbal fronting: Towards a typology of repair operations. *Glossa: a journal of general linguistics* 2(1). 1–36. doi:10.5334/gjgl.161.

Heycock, Caroline. 1995. Asymmetries in reconstruction. *Linguistic Inquiry* 26(4). 547–570.

Jo, Jung-Min. 2013. Predicate contrastive topic constructions: Implications for morpho-syntax in Korean and copy theory of movement. *Lingua* 131. 80–111. doi:10.1016/j.lingua.2013.02.003.

Kobele, Gregory Michael. 2006. *Generating copies: An investigation into structural identity in language and grammar*: University of California dissertation.

Laka, Itziar. 1990. *Negation in syntax. on the nature of functional categories and projections*. Cambridge, MA: MIT dissertation.

Landau, Idan. 2006. Chain resolution in Hebrew V(P)-fronting. *Syntax* 9(1). 32–66. doi: 10.1111/j.1467-9612.2006.00084.x.

Muñoz Pérez, Carlos. 2017. *Cadenas e interfaces*. Buenos Aires: University of Buenos Aires dissertation.

Nunes, Jairo. 1995. *The copy theory of movement and linearization of chains in the minimalist program*. College Park: The University of Maryland dissertation.

Nunes, Jairo. 2004. *Linearization of chains and sideward movement*. Cambridge, MA: The MIT Press.

Saab, Andrés. 2017. Varieties of verbal doubling in Romance. *Isogloss. A journal on variation of Romance and Iberian languages* 3(1). 1. doi:10.5565/rev/isogloss.43.

Simons, Mandy. 2007. Observations on embedding verbs, evidentiality, and presupposition. *Lingua* 117(6). 1034–1056. doi:10.1016/j.lingua.2006.05.006.

Trinh, Tue. 2009. A constraint on copy deletion. *Theoretical Linguistics* 35(2-3). 183–227. doi: 10.1515/thli.2009.011.

Vicente, Luis. 2007. *The syntax of heads and phrases: A study of verb (phrase) fronting*. Leiden: Leiden University dissertation.

Vicente, Luis. 2009. An alternative to remnant movement for partial predicate fronting. *Syntax* 12(2). 158–191. doi:10.1111/j.1467-9612.2009.00126.x.

Zubizarreta, María Luisa. 1999. Las funciones informativas: tema y foco. In Ignacio Bosque & Violeta Demonte (eds.), *Gramática descriptiva de la lengua española*, chap. 64, 215–244. Madrid: Espasa Calpe.