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

Carlos Muñoz Pérez

Pontifical Catholic University of Chile

`carlos.munozperez@uc.cl`

Matías Verdecchia

IIF/SADAF/CONICET & University of Buenos Aires

`mnverdecchia@gmail.com`

First draft – May 2020

Abstract

This paper argues that Spanish predicate doubling is a phenomenon for which an analysis based on multiple copy spell-out cannot be empirically substantiated. This approach does not account for the absence of reconstruction effects in the construction and the lack of isomorphism between both duplicate predicates; moreover, island effects cannot be taken to support a multiple spell-out account, as doubling patterns for which a movement analysis is untenable also display them. We advance that predicate doubling is better understood as involving a base generated predicate in the left periphery of the clause that functions as a contrastive topic, i.e., it evokes a set of alternative questions (Büring 2003). We show that a number of properties of the construction follow from this analysis, including sensitivity to islands. Furthermore, the proposal provides a rationale for instances of genus-species splits attested in the construction, and also offers a straightforward account for otherwise mysterious asymmetries arising with factive verbs.

Keywords— Spanish, predicate doubling, movement, question under discussion, islands

1 Introduction

The term *predicate doubling* refers to a family of constructions in which two occurrences of the same lexical verb appear.[1] The first verb occupies a dislocated position in the left periphery of the sentence, while the second remains in its clause-internal base position. The examples in (1) to (3) illustrate the phenomenon.

---

[1]This type of construction has received many names over the years, e.g., *Predicate Cleft*, *VP-Cleft*, *vP-Topicalization*, etc. We refer to it as *predicate doubling* simply because we find that this terminology describes the phenomenon in a more transparent way.

(1) l̄ī à l̄ī-dā zué sàká.
     eat we eat-past yesterday rice
     'We ATE rice yesterday.'

<div align="right">Vata (Koopman 1984, as cited in Nunes 2004)</div>

(2) Lirkod Gil lo yirkod   ba-xayim.
     to.dance Gil not will.dance in.the.life
     'As for dancing, Gil will never dance.'

<div align="right">Hebrew (Landau 2006)</div>

(3) Rira   adie   ti Jimo o ra adie.
     buying chicken ti Jimo hts buy chicken
     'The fact that Jimo bought chicken.'

<div align="right">Yoruba (Kobele 2006)</div>

As these sentences show, the "size" of the left-peripheral verbal duplicate may vary. For instance, in (1) only the bare verb $\overline{li}$ 'eat' is doubled at the left, while in (3) the left-peripheral duplicate seems to be the VP *rira adie* 'buying chicken'. For ease of reference, we will henceforth refer to the leftmost and rightmost verbal constituents in these constructions, whatever their size, as PREDICATE 1 and PREDICATE 2, respectively.
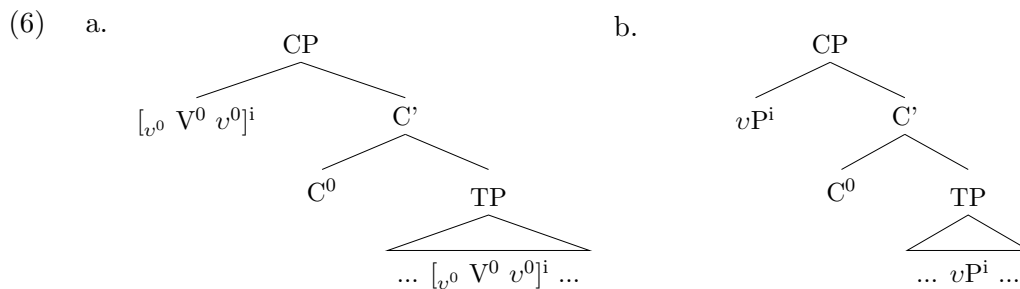
(4) $\underbrace{\text{VERB (XP)}}_{\text{PREDICATE 1}}$ ... [$_{\text{CLAUSE}}$ ... (AUX/MODAL) ... $\underbrace{\text{VERB (XP)}}_{\text{PREDICATE 2}}$]

Predicate doubling constructions have been argued to offer evidence supporting the *Copy Theory of Movement* (e.g., Nunes 2004). In this framework, doubling patterns like (1), (2) and (3) are analysed as instances of multiple copy spell-out, i.e., PREDICATE 1 and PREDICATE 2 are taken to be overt members of a single movement chain C = {PREDICATE 1, PREDICATE 2}; see Cho & Nishiyama (2000), Abels (2001), Nunes (2004), Kobele (2006), Landau (2006), Trinh (2009), among many others.

This paper focuses on the Spanish variety of the phenomenon. In this language, predicate doubling has been observed to involve either a bare infinitive, e.g., (5a), or an infinitival phrase, e.g., (5b) and (5c), in the left periphery of the sentence.

(5) 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.'

Vicente (2007, 2009) offers a movement-based analysis of Spanish predicate doubling. According to him, the derivation of a sentence like (5a), in which PREDICATE 1 is a bare infinitive, involves merging a copy of the complex head v^0 in Spec,C as in (6a), while a sentence like (5c), in which PREDICATE 1 is an infinitival phrase, involves a copy of the full vP in Spec,C as in (6b).

(6) a.

```
            CP
          /    \
[_v⁰ V⁰ v⁰]ⁱ    C'
              /    \
            C⁰      TP
                   /  \
              ... [_v⁰ V⁰ v⁰]ⁱ ...
```

b.

```
            CP
          /    \
       vPⁱ      C'
              /    \
            C⁰      TP
                   /  \
                ... vPⁱ ...
```

In both cases, the two members of the movement chain C = $\{v^0, v^0\}$ or C = $\{v\mathrm{P}^0, v\mathrm{P}^0\}$ receive pronunciation. To account for the distinct morphology in the doubled verbs (e.g., *comprar* 'to buy' vs. *compré* 'I bought' in (5a)), Vicente assumes that an infinitival suffix appears by default on bare verbal roots.

(7) INFINITIVE BY DEFAULT (adapted from Vicente 2009: 170)
As $[_{v^0} \mathrm{V}^0\ v^0]$ lacks any agreement projection, it ought to be spelled out as a bare unin-flected 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.

As evidence for a movement-based analysis, Vicente notices that PREDICATE 1 and PREDICATE 2 are subject to locality constraints that are reminiscent of those holding between filler and gap in A'-movement dependencies. To begin with, predicate doubling is acceptable if PREDICATE 2 is located within a complement clause.

(8) a. Comprar, Cosmo dice   que Eliana compró   el libro.
       to.buy   Cosmo say.3SG 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, the doubling pattern becomes unacceptable if PREDICATE 2 is inside a syntactic island. This is shown in the examples in (9) regarding adjuncts (9a), preverbal subjects (9b), coordinate structures (9c), and relative clauses (9d).

(9) a. * Comprar, Eliana fue   al   cine   después de comprar un libro.
         to.buy   Eliana went.3SG to.the cinema after   of to.buy   a book
         'As for buying, Eliana went to the cinema after buying a book.'

    b. * Comprar, que Eliana haya   comprado un libro me sorprendió.
         to.buy   that Eliana have.3SG bought   a book me surprised
         'As for buying, that Eliana bought a book surprised me.'

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

    d. * Comprar, vi   a   la mujer que compró   un libro.
         to.buy   saw.1SG DOM the woman that bought.3SG a book
         'As for buying, I saw the woman who bought a book.'

While the data in (9) seem to offer a quite strong empirical argument for a movement-based analysis, we contend that predicate doubling constructions in Spanish are not derived through movement, i.e., PREDICATE 1 and PREDICATE 2 are not copies pertaining to the same chain. Instead, we maintain that PREDICATE 1 is a base-generated *contrastive topic* in the sense of Büring (2003). That is, we observe that predicate doubling in Spanish has the effect of introducing a complex discourse structure consisting of a set of alternatives questions, and that PREDICATE 1 makes explicit (part of) the predicate of one of those questions, i.e., the *question under discussion.* We argue that this approach not only accounts for the island restrictions attested in (9), but also explains a several properties of the construction that are unexpected under a movement perspective.

The structure of the paper is as follows. In section 2, we discuss a number of arguments that lead to reject an analysis of Spanish predicate doubling in terms of a movement dependency. Section 3 introduces our proposal: we present the notion of contrastive topic, show that Spanish predicate doubling fits the characterization, and derive some properties of the construction that account for its island sensitivity. Section 4 discusses two additional patterns attested with predicate doubling that are problematic for a multiple spell-out analysis but follow straightforwardly from our account. Finally, section 5 contains some concluding remarks.

2 Predicate doubling does not involve movement

We present some rather straightforward arguments leading to reject the claim that PREDICATE 1 and PREDICATE 2 are copies in Spanish predicate doubling. First, we briefly show that the construction does not display reconstruction effects. Next, we observe that PREDICATE 1 and PREDICATE 2 are not required to be isomorphic, as they should be if they were copies, and that they are related through anaphora rather than formal identity. Finally, we introduce two previously unattested verbal doubling patterns in Spanish, and show that they display island effects even when a movement analysis is, in principle, unlikely for them; this weakens the claim that the data in (9) unequivocally supports a multiple spell-out analysis of Spanish predicate doubling.

2.1 No reconstruction effects

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. This should be particularly true for predicate doubling, as Heycock (1995) and many others after have observed that displaced predicates always reconstruct.

Consider the unacceptable sentence in (10), which involves a Condicion C violation as the pronoun *él* 'he' c-commands the correferential noun *Cosmo*.

(10)   * Él$_i$ saluda   a   la madre de Cosmo$_i$ siempre.
        he greet.3SG DOM the mother of Cosmo always
        Lit: 'He$_i$ always greets Cosmo$_i$'s mother.'

As shown in (11), predicate doubling exhibits a considerable amelioration effect when constructed over unacceptable sentences like (10). This is unexpected under a movement-based analysis, as it predicts that the infinitival phrase in PREDICATE 1 must reconstruct within the clause, in the c-command domain of the pronoun *él* 'he'.

(11)   ? Saludar a   la madre de Cosmo$_i$, él$_i$ la saluda   siempre.
        to.greet DOM the mother of Cosmo   he her greet.3SG always
        'As for greeting Cosmo$_i$'s mother, he always greets her.'

As for the slight awkwardness of (11), it is arguably not related to reconstruction, as similar configurations involving hanging topics show the same type of deviation.

(12)　? Con respecto a la madre de Cosmo, él la saluda siempre.
　　　with respect to the mother of Cosmo, he her greet.3SG always
　　　'As for Cosmo$_i$'s mother, he$_i$ always greets her.'

Cleaner contrasts can be obtained with complex sentences involving completive clauses. The sentence in (13a) violates Condition C as the pronoun *él* 'he' c-commands the R-expression *Cosmo*, and they are correferential. The predicate doubling sentence in (13b), on the other hand, is perfectly acceptable.

(13)　a.　* Supuse que al menos él$_i$ querría saludar a la madre de
　　　　　supposed.1SG that to.the less he would.want.3SG 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 él$_i$
　　　　　to.greet DOM the mother of Cosmo supposed.1SG that to.the less he
　　　　　querría saludar-la.
　　　　　would.want.3SG to.greet-her
　　　　　As for greeting Cosmo$_i$'s mother, I supposed that at least he$_i$ would want to greet her.'

A similar pair is attested in (14): while (14a) is unacceptable due to Condition C, (14b) is fully grammatical.

(14)　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.'

The lack of Condition C effects in (11), (13b) and (14b) suggests that there is no reconstruction in Spanish predicate doubling.

The same conclusion can be drawn from patterns involving reconstruction for Condition A. Take the sentence in (15), in which the anaphor *sí mismo* 'himself' is bound by the c-commanding R-expression *Jorge*.

(15)　Jorge$_i$ vio la foto de sí mismo$_i$.
　　　Jorge saw.3SG the photo of himself
　　　'Jorge$_i$ saw the picture of himself$_i$.'

As (16) shows, if *sí mismo* 'himself' appears within PREDICATE 1 in a predicate doubling construction, its bound interpretation is marginal at best. This suggests that the infinitival phrase in PREDICATE 1 is not being reconstructed in the c-command domain of the subject *Jorge*.

(16)　?? 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.'

The type of deviation attested in (16) can also be found with hanging topics under similar conditions. This further corroborates the claim that there is no reconstruction whatsoever in (16).

(17) ?? Con respecto a la foto   de sí mismo, Jorge la vio.
      with respect to the photo of himself   Jorge it saw
      'As for the photo of himself, Jorge saw it.'

Notice that reconstruction for Condition A in Spanish is perfectly natural with standard cases of A'-movement, e.g., (18). Thus, the awkwardness of (16) is unexpected under a movement-based analysis of predicate doubling.

(18) 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?'

The data points discussed in this section show that there are no reconstruction effects in Spanish predicate doubling. This observation undermines the hypothesis that the construction is derived through movement.

2.2   Predicates are related through anaphora, not identity

According to most versions of Copy Theory, if two constituents α and β pertain to the same movement chain, then α and β must be structurally isomorphic, i.e., *non-distinct* (Chomsky 1995, Nunes 1995, i.a.). Since a movement-based analysis of predicate doubling is based on the idea that PREDICATE 1 and PREDICATE 2 are overt members of a single chain, it follows that both predicates must be strictly identical. This is true for certain cases of predicate doubling, as exemplified in (19). The v^0 and vP labels on PREDICATE 1 and PREDICATE 2 correspond to Vicente's analyses in (6).

(19) 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, data discussed by Saab (2017) show that the predicates in the construction are not required to be identical constituents. In particular, Saab observes that DPs in PREDICATE 1 are usually doubled by anaphoric elements in PREDICATE 2, e.g., clitics (20a), strong pronouns (20b), or epithets (20c). The reader must take into consideration that other constructions that have been analyzed as multiple copy spell-out, e.g., *wh-copying* (Fanselow & Mahajan 2000, Nunes 2004) or *emphatic doubling* (Saab 2011, 2017), do not tolerate this kind of mismatch.

(20) a. [$_{vP}$ Comprar el auto], puedo [$_{vP}$ comprar-lo]
              to.buy   the car   can.1sg   to.buy-it
          'As for buying the car, I can buy it.'
      b. [$_{vP}$ Hablar con Cosmo], puedo [$_{vP}$ hablar con él]
              to.talk with Cosmo   can.1sg   to.talk with he
          'As for talking to Cosmo, I can talk to him.'

c. [$_{v}$P Hablar con Cosmo], puedo [$_{v}$P hablar con ese idiota]
   to.talk with Cosmo can.1sg to.talk with that idiot
   'As for talking to Cosmo, I can talk to that idiot.'

Furthermore, these anaphoric expressions behave *exactly* as if they were referring to a previously mentioned definitive DP in a different sentence, e.g., (21). Since this type of dependency is not mediated by any narrow syntactic operation, the claim that the predicates in (20) are related through movement is severely weakened.

(21) a. 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.'

   b. Finalmente hablé   con Cosmo$_i$. Hablé   con él$_i$ ayer.
      finally   talked.1SG with Cosmo   talked.1SG with he yesterday
      'I finally talked to Cosmo. I talked to him yesterday.'

   c. Finalmente hablé   con Cosmo$_i$. Hablé   con ese idiota$_i$ ayer.
      finally   talked.1SG with Cosmo   talked.1SG with that idiot   yesterday
      'I finally talked to Cosmo. I talked to that idiot yesterday.'

Saab (2017) offers an enlightening discussion on how pronominalization patterns in predicate doubling mimic intersentential anaphora based on the behaviour of null objects. Spanish allows null pronominal objects when their antecedent is indefinite. For instance, using the null pronoun $\emptyset$ as part of the answer in (22B) is a good way to refer to the indefinite *cerveza* 'beer' in (22A).

(22) 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 anaphoric pattern may be attested in predicate doubling constructions, i.e., the indefinite in PREDICATE 1 behaves as an antecedent for the null pronominal inside the clause.

(23) Comprar cerveza$_i$, compré $\emptyset_i$ ayer.
     to.buy   beer   bought.1SG   yesterday
     'As for buying beer, I bought (beer) yesterday.'

It has been observed that indefinite null objects may receive certain modifiers, e.g., adjectives (24) or quantifiers (25).

(24) 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).'

(25) A: ¿Comés pescado$_i$?
        eat.2SG fish
        'Do you eat fish?'

B: Como poco ∅$_i$.
   eat.1sg few

   'I eat a little bit.'

These patterns are also replicated in the predicate doubling construction.

(26) a. Tomar cerveza$_i$, tomo ∅$_i$ belga.
        to.drink beer drink.1sg Belgian

        'As for drinking beer, I drink Belgian (beer).'

    b. Comer pescado$_i$, como poco ∅$_i$.
        to.eat fish eat.1sg few

        'As for eating fish, I eat a little bit.'

In sum, the examples in this section show that Predicate 1 and Predicate 2 (i) are related through anaphora, and (ii) are not required to be formally identical. As discussed, these results go against what would be expected under an analysis based on multiple copy pronunciation.

2.3   Doubling patterns that do not require c-command

As Zubizarreta (1999) and many 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'.
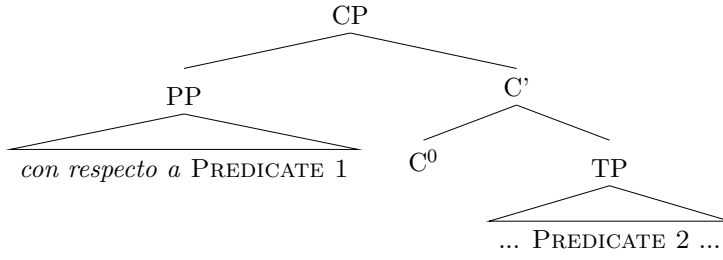
(27)   Con respecto a la cena, voy a preparar-la temprano.
        with respect to the dinner go.1sg to prepare-it early

        'As for dinner, I'll prepare it early.'

The same type of prepositional element may be used to introduce an infinitive or infinitival phrase in the left periphery of the sentence that is doubled within the clause by a finite verb, e.g., (28). While it is not evident that these constructions behave exactly as more "standard" instances of predicate doubling, e.g., those in (5), we do maintain our terminology and also refer to these verbal duplicates as Predicate 1 and Predicate 2.

(28) 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 auto.
          with respect to to.buy the car effectively could.1sg to.buy the car

          'As for buying the car, I was indeed able to buy the car.'

Our main concern at introducing these examples is that Predicate 1 occupies a position within a left-peripheral PP, i.e., the infinitival phrase forms a constituent together with the prepositional expression. Therefore, the relevant syntactic structure for the examples in (28) should be the one in (29).

(29)

```
                              CP
                  ┌───────────┴───────────┐
                 PP                       C'
          ┌───────┴───────┐        ┌───────┴───────┐
      con respecto a PREDICATE 1   C⁰             TP
                                              ┌────┴────┐
                                          ... PREDICATE 2 ...
```

Given that there is no c-command relation between PREDICATE 1 and PREDICATE 2 in this type of configuration, it may be concluded that these elements are not related through movement and, therefore, that the examples in (28) do not involve multiple copy spell-out.

Even when a movement-based analysis does not seem to be tenable for these constructions, they display similar locality restrictions to those attested with "standard" predicate doubling. That is, just as in the examples in (8), introducing PREDICATE 1 together with a prepositional expression allows locating PREDICATE 2 in an embedded clause.

(30) a. Con respecto a comprar, Cosmo dice   que Eliana compró   un libro.
          with respect   to to.buy   Cosmo say.3SG that Eliana bought.3SG a   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 pizza
          'As for eating, I want to eat pizza.'

However, the construction is also sensitive to island effects; namely, placing PREDICATE 2 within an adjunct (31a), a preverbal subject (31b), a coordinate structure (31c), or a relative clause (31d) leads to unacceptability.

(31) a. *Con respecto a comprar, Eliana fue   al   cine   después de comprar un
           with respect   to to.buy   Eliana went.3SG to.the cinema after   of to.buy   a
           libro.
           book
           'As for buying, I went to the cinema after buying a book.'

      b. *Con respecto a comprar, que Eliana haya   comprado un libro me
           with respect   to to.buy   that Eliana have.3SG bought   a book me
           sorprendió.
           surprised.3SG
           'As for buying, that Cosmo bought a book surprised me.'

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

      d. *Con respecto a comprar, vi   a   la mujer que compró   el libro.
           with respect   to to.buy   saw.1SG DOM the woman that bought.3SG the book
           'As for buying, I saw the woman who bought the book.'

Our point here is straightforward: the type of doubling exemplified in (28) does not seem to involve syntactic movement but, nevertheless, it is still subject to island restrictions. Therefore, it seems fair to conjecture that locality restrictions in predicate doubling constructions might be independent from movement operations.

2.4 Doubling patterns with finite verbs

Vicente (2009: 165) points out that the fronted verb cannot surface as finite in predicate doubling constructions.

(32)   * Leyó,   Juan leyó   el libro.
          read.3SG Juan read.3SG the book
          'As for reading, Juan read the book.'

However, this observation must be qualified. Finite verbs are banned from the left periphery in a doubling construction if they are not accompanied by an overt complementizer. This is shown in the examples in (33). Once again, we refer to the duplicates as PREDICATE 1 and PREDICATE 2.

(33)   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 Cosmo leyó   el libro, leyó   el libro.
            that Cosmo read.3SG the book read.3SG the book
            'As for Cosmo reading the book, he did read the book.'

A property that distinguishes this "finite" predicate doubling is that the dislocated constituent must be a complete sentence, with constituents matching every argument and adjunct within the clause. For instance, the example in (34a) is unacceptable because the direct object *el auto* 'the car' is absent in PREDICATE 1; notice that this contrasts sharply with standard (non-finite) predicate doubling examples as (5a). Importantly, this is an anaphoric condition (not an identity-based one) in the sense discussed in section 2.2, e.g., the DP *el auto* within PREDICATE 2 in (34b) could be replaced by an accusative clitic or by an epithet.

(34)   a.   * Que compré,   compré   el auto.
              that bought.1SG bought.1SG the car
              'As for me buying, I bought the car.'
       b.   Que compré   el auto, compré   el auto.
            that bought.1SG the car   bought.1SG the car
            'As for me buying the car, I did buy the car.'

Obviously, the verb within PREDICATE 1 in these sentences cannot be analysed as a complex head $[_{v^0} V^0 v^0]$ that receives infinitival morphology by default. Instead, one could attempt to analyse the examples in (33) as involving movement and multiple spell-out of a TP headed by a complex head T^0, i.e., $[_{T^0} [_{v^0} V^0 v^0] T^0]$. Such a derivation, however, would fail at capturing the obligatoriness of the complementizers in (33).

The most straightforward way of accounting for the presence of the complementizer *que* in these constructions is analysing the dislocated constituent as a full CP. This possibility is supported by further data. Contrary to "standard" (non-finite) predicate doubling, negation may appear in PREDICATE 1 if the verb is finite and accompanied by a complementizer. The basic contrast is exemplified by the pair of sentences in (35), where the infinitive *comprar* 'to buy' rejects negation (35a), while the inflected form *compró* 'she/he bought' accepts it.

(35) 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. If "finite" predicate doubling involves a full dislocated CP, negation is predicted to be acceptable in PREDICATE 1.
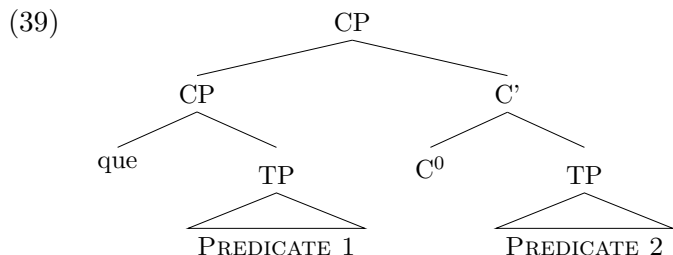
(36)
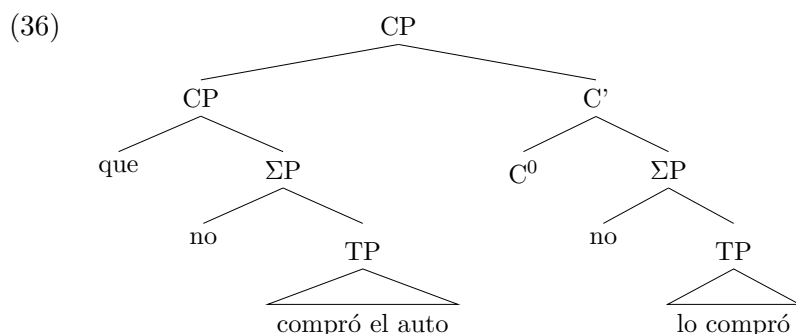
On the contrary, if non-finite predicate doubling involves, say, a φ-defective TP projection in the left periphery of the matrix sentence, the lack of negation in the dislocated infinitival phrase is accounted for, as this constituent does not include Σ^0.

(37)
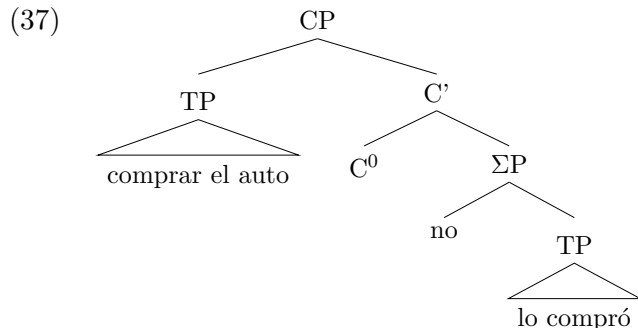
The observation that the dislocated constituent in "finite" predicate doubling is a CP is very troublesome for a potential analysis based on multiple spell-out. As shown in (38), this would require an extremely local movement that generates a copy of the intermediate projection C' and merges it back in Spec,CP. In fact, such a derivation does not seem to compatible with standard assumptions within the *Agree* system (Chomsky 2001), as there is no Probe-Goal relation motivating this operation.

(38)
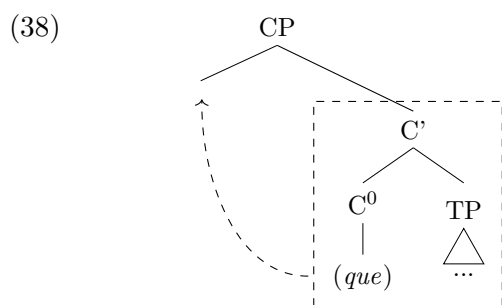
Instead, we propose that in these constructions PREDICATE 1 is part of a CP projection that is base-generated in the left periphery of the matrix structure. This is shown in (39).

(39)

```
                      CP
           ┌──────────┴──────────┐
          CP                     C'
      ┌────┴────┐           ┌─────┴─────┐
    que        TP          C⁰          TP
            ┌───┴───┐              ┌────┴────┐
          PREDICATE 1            PREDICATE 2
```

This approach is supported by the fact that the fronted CP may appear as the complement of a prepositional expression like *con respecto a* 'with respect to'. As discussed in the previous section, this possibility strongly suggests that both predicates are not part of the same chain.

(40)   Con respecto a que si compró   el   auto, lo compró.
         with respect   to that if bought.3SG the car   it bought.3SG

         'As for whether she/he bought the car, she/he bought it.'

Despite the fact that a movement-based analysis seems to be untenable for "finite" predicate doubling, the construction still displays exactly the same locality restrictions attested with standard (non-finite) predicate doubling. Thus, just as in the examples in (8), PREDICATE 2 may appear inside a complement clause in these constructions.

(41)   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, placing the rightmost verb inside a syntactic island leads to unacceptability, replicating the patterns in (9). The sentences in (42) show that PREDICATE 2 cannot appear in a relative clause (42d), an adjunct (42a), a preverbal subject (42b), or a coordinate structure (42c).

(42)   a. * Que compró   el   libro, Eliana fue   al   cine   después de que lo
             that bought.3SG the book Eliana went.1SG to.the cinema after   of that it
             compró.
             bought.3SG

             'As for buying the book, Eliana went to the cinema after she bought it.'

       b. * 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.'

       c. * Que compró   el   libro, Eliana compró   el   libro y   vendió   una
             that bought.3SG the book Eliana bought.3SG the book and sold.3SG a
             revista.
             magazine

             'As for buying the book, Eliana sold a magazine and bought it.'

       d. * Que compró el   libro, vi   a   la   mujer que lo compró.
             that saw.3SG the book know.1SG DOM the woman that it bought.3SG

             'As for buying the book, I saw the woman who bought it.'

Thus, once again, a doubling pattern for which a movement account does not seem to be tenable exhibits restrictions that are reminiscent of those attested in A'-movement. And once again, this suggests that there must be an explanation for island-like constraints in predicate doubling that is independent from syntactic movement; we will come back to this issue in section 3.3. For the moment, it is necessary to conclude that island effects like those exemplified in (9) cannot be taken to support a multiple spell-out account of Spanish predicate doubling, as island sensitivity is also attested in constructions without movement.

3 A base-generation analysis of predicate doubling

The arguments presented in the previous section lead to an analysis of Spanish predicate doubling in which there is no movement relation between PREDICATE 1 and PREDICATE 2, i.e., the verbs in the construction are not copies but are independently generated. We propose that the basic syntactic scheme for the predicate doubling construction follows the lines sketched in (43), in which X^0 represents a bare infinitive, i.e., a φ-defective complex head $[_{T^0}[_{v^0} V^0 \, v^0] \, T^0]$ (e.g., (5a)), while XP stands for an infinitival TP (e.g., (5b)); in both cases, the constituent in Spec,C is base-generated.[2]

(43)
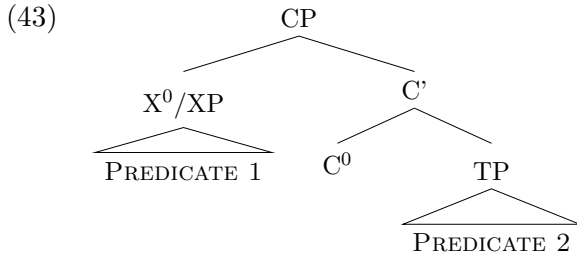
In principle, instances of predicate doubling with prepositional expressions, e.g., (28), and finite verbs, e.g., (33), should receive the same analysis, i.e., XP in (43) should also stand for PP and CP, respectively. However, in what follows we focus on the "standard" and more traditional cases of predicate doubling only, e.g., (5). While this obeys space considerations, we also believe that a more systematic comparison is required before advancing an integral discussion of the three varieties of predicate doubling (and this is beyond the scope of this paper).

An analysis of predicate doubling that rejects treating PREDICATE 1 and PREDICATE 2 as copies must be able to account for the most basic property of the construction: the lexical-identity requirement between both verbal projections. As shown in (44), the lexical items in PREDICATE 1 must be the same as those in PREDICATE 2. For instance, if PREDICATE 1 consists of the infinitive *comprar* 'to buy' while PREDICATE 2 contains the verb *tomó* 'she/he drank', the outcome is an unacceptable sentence (44a); if the direct object in PREDICATE 1 is the DP *un auto* 'a car' while the same function is fulfilled in PREDICATE 2 by the DP *la moto* 'the motorcycle', unacceptability follows (44b) as well.

(44)   a.   * Comprar, tomó   cerveza.
              to.buy   drank.3SG beer

              'As for buying, she/he drank beer.'

        b.   * Comprar un auto, compré   una moto.
              to.buy   a   car   bought.1SG a   motorcycle

              'As for buying a car, I bought a motorcycle.'

---

[2]Alternatively, infinitives may be taken to be complex heads v^0 that receive morphology by default, as proposed by Vicente (2007, 2009). In this case, X^0/XP would stand for v^0/vP.

We contend that the lexical-identity requirement does not follow from narrow syntactic mechanisms, but from the discourse function of Spanish predicate doubling. The core of our proposal is that PREDICATE 1 is a base-generated *contrastive topic* in the sense of Büring (2003). As we show below, this analysis not only derives the unacceptability of (44), but also explains why the construction displays sensitivity to islands. Before fully advancing our account, we first need to introduce some basic aspects of Büring's theory of contrastive topics.
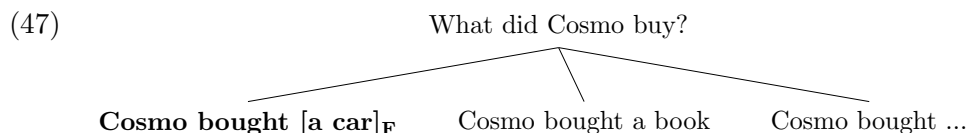
3.1 Contrastive topics

Büring's (2003) account of contrastive topics is framed within the *question under discussion* model of discourse (Roberts 1996). In short, this framework analyses utterances as in relation to an implicit or explicit question that is being addressed, i.e., the question under discussion (QUD). For instance, a random sentence like *Cosmo likes chicken* can be taken to answer the QUD *what does Cosmo like?*, which in turn can be taken to partially answer the "bigger" QUD *what is Cosmo like?*. Thus, the model advances a hierarchical model of discourse that can be represented through trees such as (45).

(45)
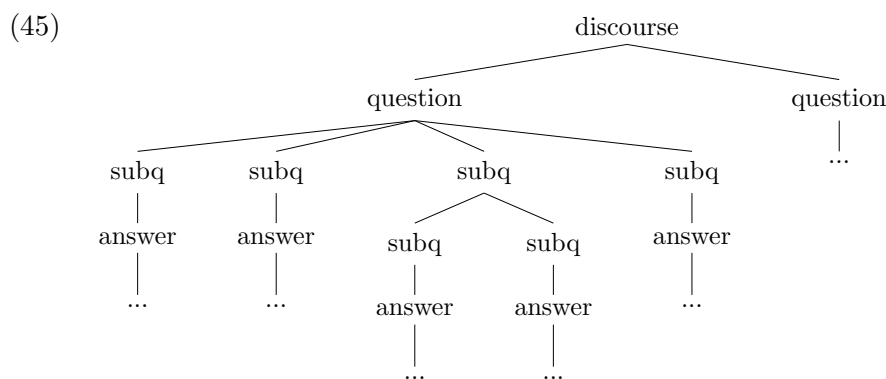
The organization of these discourse trees borrows from alternative semantics (Rooth 1992). Take the following example. A declarative sentence like (46a) is taken to answer the implicit/explicit QUD in (46b), which denotes the set of possible answers depicted in (46c); the set of propositions in (46c) also constitutes the focus semantic value of (46a).

(46) a. Cosmo bought [a car]$_F$.
   b. What did Cosmo buy?
   c. $[\![(46a)]\!]^f = [\![(46b)]\!] = \{$Cosmo bought a car, Cosmo bought a book, ...$\}$

This information can be captured in a discourse tree like (47). Here, (46a) is sister to its alternative propositions and daughter to its QUD in (46b).

(47)

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 (i.e., a set of sets). Consider the example in (48). The answer in (48B) has two prosodically prominent constituents: the focused phrase *the beans* is assigned an A-accent, while the proper noun *Fred* is marked as a contrastive topic by means of a B-accent (Jackendoff 1972); this intonation pattern suggests a

potential continuation in which other people ate other things, e.g., *Mary ate the eggplant, George ate the tuna, Elaine ate the carrots*, and so on.

(48)   A: What did you people eat?
   B: Well, [Fred]$_{\text{CT}}$ ate [the beans]$_{\text{F}}$.

As Büring puts it, this "continuation effect" indicates the presence of a complex discourse structure, in which both narrow focus and contrastive topic function as variables introducing each of them a set of alternatives. To retrieve the relevant discourse structure, Büring advances the two-step algorithm in (49).

(49)   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 (49a) by replacing the contrastive topic with some alternative to it.

If applied to the sentence in (48B), this procedure yields (i) its QUD (50a), and (ii) a set of alternative questions (50b). This latter object is what Büring (2003) calls the *CT-value* of the utterance in (48B), i.e., $[\![(48B)]\!]^{ct}$.

(50)   [Fred]$_{\text{CT}}$ ate [the beans]$_{\text{F}}$.
       a. Fred$_{\text{CT}}$ ate what? $\longrightarrow$ What did Fred$_{\text{CT}}$ eat?
       b. What did x_{CT} eat? $\longrightarrow$ {What did Fred eat?, What did Mary eat?, ...} = $[\![(48B)]\!]^{ct}$

The information in (50) can be summarized as in the discourse tree in (51). In short, this representation shows that an utterance containing a contrastive topic completely answers its immediate QUD, but also evokes a set of alternative questions that altogether address a "bigger" question, e.g., *who ate what?*; this is the "continuation effect" attested before. As Büring, we assume that evoking alternative questions is part of the conventional meaning of contrastive topics, while the content of those questions is standard conversational implicature.

(51)
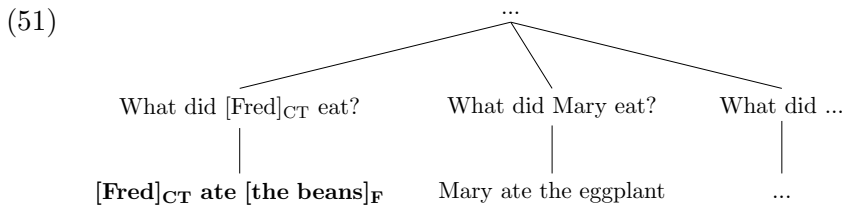
In the next section, we show that the dislocated predicate in Spanish predicate doubling functions as a contrastive topic in exactly the same sense. That is, a sentence involving predicate doubling answers a QUD and evokes a set of alternative questions. To retrieve the relevant discourse structures and show that PREDICATE 1 displays the behavior of a contrastive topic, we will appeal to Büring's CT-Value Formation algorithm in (49). This procedure, however, requires a slight modification to be applied to contrastive topics involving some form of doubling. As a working solution, we advance the following addendum.

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

This is independently required for cases such as (53), for which the two-step process in (49) is taken to proceed as follows.

(53)   As for [Fred]$_{CT}$, he ate [the beans]$_F$.
    a. As for Fred$_{CT}$, he ate what? $\longrightarrow$ What did Fred$_{CT}$ eat?
    b. What did x_{CT} eat? $\longrightarrow$ {What did Fred eat?, What did Mary eat?, ...}

3.2   The information structure of predicate doubling

Vicente (2007) observes that predicate doubling constructions have a *verum focus* type of interpretation, i.e., they emphasize the positive polarity of a proposition. Verum focus in Spanish is typically realized by assigning contrastive accent to the positive polarity marker *sí* 'yes' (Escandell-Vidal 2011); in the dialogue in (54), this form is employed to refute the proposition in (54A).

(54)   A: Jorge no leyó   el libro.
           Jorge not read3SG the book
           'Jorge didn't read the book.'
       B: SÍ lo leyó,   (pero no lo entendió).
           yes it read.3SG but not it understood.3SG
           'He did read it, (but he didn't understand it).'

As noticed by Vicente, predicate doubling can be used in the same context to express roughly the same meaning. In these cases, the contrastive accent must fall on the main finite verb.

(55)   A: Jorge no leyó   el libro.
           Jorge not read3SG the book
           'Jorge didn't read the book.'
       B: Leer,   lo LEYÓ,   pero no lo entendió.
           to.read it read.3SG but not it understood.3SG
           'As for reading, he did read it, but he didn't understand it.'

The verum focus interpretation is not a defining ingredient of the construction. As observed by Muñoz Pérez (2017), predicate doubling allows to focus elements other than the polarity of the proposition. The examples in (56) show that direct objects (56a), complements of prepositions (56b), subjects (56c), and adverbs (56d) may also be focused.

(56)   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.'
       d.   Comprar, compré   HOY el auto, no ayer.
           to.buy   bought.1sg today the car, not yesterday
           'As for buying, I bought the car TODAY, not yesterday.'

Notice that all these examples involve narrow focus. Broad focus, on the other hand, is strongly unacceptable together with predicate doubling.

(57) A: ¿Qué pasó?
          what happened
          'What happened?'

   B: # Comprar, compré   el   auto.
        to.buy   bought.1SG the car
        'As for buying, I bought the car.'

Thus, predicate doubling requires narrow focus on some constituent. As discussed, narrow focus is one of the key components to calculate the CT-value of a sentence, the other one being the contrastive topic itself. We advance the hypothesis that what we have called PREDICATE 1 in the predicate doubling construction is a contrastive topic; or, to put it in slightly different terms, we take that a doubling pattern on a verbal projection is a means to indicate that a predicate must be interpreted as a contrastive topic in Spanish. The representation in (58) summarizes our proposal.

(58) $\underbrace{\text{PREDICATE 1}}_{contrastive\ topic}$, [$_{\text{CLAUSE}}$ ... PREDICATE 2 ... $\underbrace{\text{X}^0/\text{XP}}_{focus}$ ...]

The immediate prediction of this scheme is that predicate doubling must always involve a "continuation effect" as the one described regarding (48B). That is, if the construction involves a contrastive topic, its use must evoke a complex discourse structure composed of a QUD and a set of alternative questions to that QUD. Moreover, the relevant discourse structure must be able to be retrieved by applying the rules of CT-Value Formation in (49) over (i) the focus of the sentence and (ii) PREDICATE 1.

Consider the dialogue in (59), which does not involve predicate doubling. The answer by speaker B in (59) completely addresses the question *what did Jorge read?*. Whatever happened to the book is irrelevant, as the QUD "only cares" about the thing that was read by Jorge.

(59) A: ¿Qué leyó   Jorge? ¿El libro o el artículo?
          what read.3SG Jorge   the book or the article
          'What did Jorge read? The book or the article?'

   B: Leyó   [el artículo]$_F$.
       read.3SG the article
       'He read the article.'

Compare this interpretation to an answer involving predicate doubling. B's response in (60B) suggests a continuation in which something else but reading has been done with the book. Assume a context in which Jorge was supposed to read the book and the article, but he did not have enough time to do both. In this scenario, it may be even inferred by speaker A that Jorge did not properly read the book, but he just had a look at it.

(60) A: ¿Qué leyó   Jorge? ¿El libro o el artículo?
          what read.3SG Jorge   the book or the article
          'What did Jorge read? The book or the article?'

   B: [Leer]$_{CT}$, leyó   [el artículo]$_F$, (el libro solo lo ojeó).
       to.read read.3SG the article   the book only it had.a.look.at.3SG
       'As for reading, he read the article, (the book, he just had a look at it).'

The "continuation effect" attested in (60B) indicates that there is a "bigger" question at play that encompasses the immediate QUD *what did Jorge read?*. While the sentence in (60B) fully

addresses the immediate QUD, it also indicates that the "bigger" question is not fully answered, and that there are alternative partial questions that should be addressed before the main issue is completely solved. In other words, (60B) displays the discourse structure that defines contrastive topics.
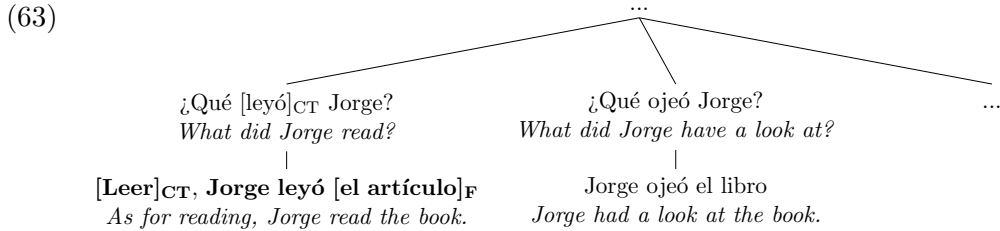
If the analysis sketched in (58) is on the right track, the discourse structure for (60B) should be retrievable from applying CT-Value Formation to the constituents designated as F and CT, i.e., (49a) must replace the DP *el artículo* 'the article' for a wh-pronoun, and (49b) must replace the infinitive *leer* 'to.read' for a series of alternatives. The first step is represented in (61), which returns the immediate QUD of the utterance. Notice that the addendum in (52) is required to derive the right result.

(61) [Leer]$_{CT}$, Jorge leyó qué ⟶ ¿Qué leyó$_{CT}$ Jorge?
(As for reading), Jorge read what ⟶ What did Jorge read?

The second step calculates the CT-value of (60B) from its QUD by replacing the CT-marked constituent in (61) with alternatives to it. In this case, the verb *leyó* 'read' is replaced with verbs such as *ojear* 'have a look at'; in (62) we informally use the notation R to name a variable for a verb.

(62) ¿Qué R Jorge? ⟶ {¿Qué leyó Jorge?, ¿Qué ojeó Jorge?, ... }
What did Jorge R? ⟶ {What did Jorge read?, What did Jorge have a look at?, ... }

This successfully derives the "continuation effect" described regarding (60B): the sentence containing predicate doubling fully answers its immediate QUD, but also introduces at least one relevant and alternative possibility of addressing the more general issue. This can be summarized in the discourse tree in (63).

(63)

¿Qué [leyó]$_{CT}$ Jorge?
What did Jorge read?
|
[**Leer**]$_{CT}$, **Jorge leyó** [**el artículo**]$_F$
As for reading, Jorge read the book.

¿Qué ojeó Jorge?
What did Jorge have a look at?
|
Jorge ojeó el libro
Jorge had a look at the book.

...

Now, consider the dialogue in (64), which contains a sentence with predicate doubling expressing verum focus. Suppose for it a scenario in which Jorge has a school assignment in which he had to read a book and write a report about it. In (64A), the teacher asks some friend of Jorge whether he read the book. The answer in (64B) fully addresses this question, but also suggests a continuation that, in a sense, contradicts the response; that is, (64B) roughly expresses the idea that while Jorge did read the book, the assignment is not ready to be handed to the teacher for some reason. Potential continuations go in the line of *but he didn't finish the report*, or *but he forgot his homework*, and so on. In fact, without an explicit continuation, the teacher's most natural response to (64B) would be something like *but what?*

(64) A: ¿Leyó el libro Jorge?
      read.3SG the book Jorge
      'Did Jorge read the book?'
    B: [Leer el libro]$_{CT}$, lo LEYÓ.
       to.read the book it read.3SG
       'As for reading the book, he did read it.'

While verum focus is phonologically expressed here as contrastive accent on the finite verb, the lexical verb itself is not assigned a focal interpretation. For concreteness, we follow Samko (2016) and Goodhue (2018) in assuming that verum focus involves focus marking of a polarity head Σ (Laka 1990, Holmberg 2016), e.g., (65); we take that this underlying structure is spelled-out as in (64B) due to T to Σ movement, i.e., the inflected verb is a complex head that contains Σ. In semantic terms, this analysis entails that a proposition p marked with verum focus is contrasted with its negation $\neg p$.

(65) [Leer   el   libro]$_{CT}$, Σ_F lo leyó.
       to.read the book   it read.3SG
   'As for reading the book, he DID read it.'

As in the previous example, the "continuation effect" attested in (64B) can be retrieved by applying Büring's CT-Value Formation. We interpret the rule in (49a) as requiring fronting of the verb containing the focused Σ head in its structure. The result is the one intended by Büring: a verum focus utterance as (64B) answers the polar question *did Jorge read the book?*.

(66) [Leer el libro]$_{CT}$, Jorge lo LEYÓ $\longrightarrow$ ¿[Leyó el libro]$_{CT}$ Jorge?
       (As for reading the book), Jorge read it $\longrightarrow$ Did Jorge read the book?

As a second step, a set of alternative polar questions is formed by replacing the contrastive topic in the QUD with contextually salient alternatives as indicated in (49b). We informally use the notation $R(x)$ to signal a variable that replaces a verb together with one of its arguments.

(67) $R(x)$ Jorge? $\longrightarrow$ {¿Leyó el libro Jorge?, ¿Olvidó la tarea Jorge?, ... }
   Did Jorge $R(x)$ $\longrightarrow$ *{Did Jorge read the book?, Did Jorge forget the homework?, ... }*

This derives the "continuation effect" described regarding (64). Once again, the result can be schematized in a discourse tree.

(68)
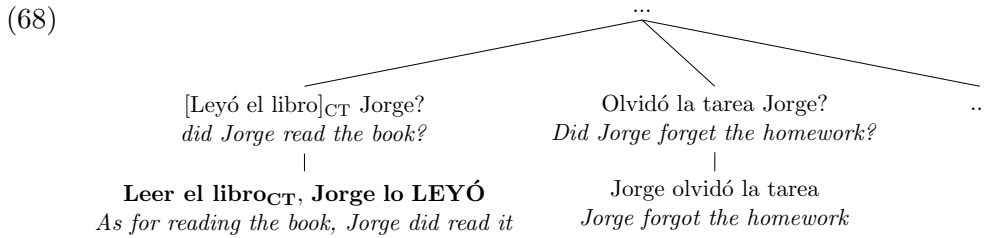
In his description of Spanish predicate doubling, Vicente (2007: 62) employs a distinction between contradictory and non-contradictory verum focus. The former emphasises the truth of a proposition p in contrast to $\neg p$, while the latter establishes a contrast between the truth of p and a different proposition q. Vicente argues that predicate doubling in Spanish involves non-contradictory verum focus. This can be seen, for instance, in (55), where the proposition $p = he$ *read the book* is contrasted to $q = he$ *didn't understand it*.

The account sketched above derives this meaning without the need of distinguishing between two primitive notions of verum focus. As mentioned regarding (65), verum focus on p always involves a contrast with its negation $\neg p$, i.e., contradictory verum focus. The non-contradictory interpretation observed by Vicente comes from one of the alternative questions introduced by the contrastive topic, i.e., in the case of (55), the dislocated verb *leer* 'to read', e.g., (69). In other words, the non-contradictory value of verum focus in predicate doubling constructions is nothing but the "continuation effect" introduced by PREDICATE 1.

(69)
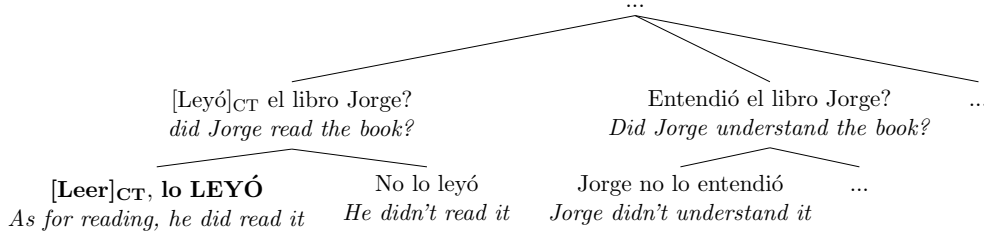
As seen, analysing PREDICATE 1 as a contrastive topic allows to capture the discourse functioning of Spanish predicate doubling; we take the fact that PREDICATE 1 can be introduced through topical markers like *con respecto a* 'with respect to', e.g., (28) and (40), to further support this characterization. The observation that predicate doubling introduces a contrastive topic interpretation has been previously made for other languages, e.g., Aboh & Dyakonova (2009) for Russian, Jo (2013) for Korean, although none of these authors have attempted to derive syntactic properties of the construction from it.

If the constituent designated as PREDICATE 1 in Spanish predicate doubling is a contrastive topic, the generalization in (70) must hold.

(70)   PREDICATE 1 makes explicit the portion of the immediate QUD that allows to contrast it to a set of alternative questions.

What (70) states is a correlation between syntactic form and discourse: the QUD immediately addressed by a predicate doubling sentence always contains PREDICATE 1. At the technical level, this follows from the CT-Value Formation algorithm in (49), as it retrieves the immediate QUD for a given sentence by (i) replacing the focus with a variable, and (ii) maintaining the contrastive topic; we take that alternative procedures should be able to derive a similar result. The adequacy of (70) has been already shown in the discourse trees in (63), (68) and (69), where it can be seen that the CT-marked constituent in the predicate doubling utterance always has a CT-marked identical correlate in its immediate QUD.

At the discourse level, (70) entails that when PREDICATE 1 is uttered, the speaker is "announcing" what the immediate QUD she is going to address is about. Contrastive topics designate a piece of information in the immediate QUD that (i) answers the "bigger question", and (ii) makes the QUD distinct from the remaining members of the CT-value. Thus, we take that PREDICATE 1 signals the "main point" of the immediate QUD. It follows, then, that at the point when the infinitive *comprar* 'to buy' in (71) is pronounced, the hearer can already know that the subsequent clause is going to be about someone buying something (in some place, at some time, in some manner, etc.), as the QUD must necessarily be built around the verb *comprar* for the contrastive topic to receive an adequate interpretation.

(71)   [Comprar]_CT, he   comprado [el auto]_F.
        to.buy   have.1sg bought   the car
        'As for buying, I bought the car.'

The "announcing" role of PREDICATE 1 has important consequences for the functioning of predicate doubling. To begin with, it explains why constituents within the clause having an antecedent in PREDICATE 1 cannot be focused. Consider the contrast in (72). While it is perfectly acceptable focusing the participle of *comprar* 'to buy' in (72a), predicate doubling in (72b) blocks this possibility. Arguably, this is because PREDICATE 1 in (72b) explicitly "announces" that the immediate QUD of this sentence and, therefore, the rest of the utterance, involve the verb *comprar*. Thus,

comprar is *given* after Predicate 1 has been uttered. The unacceptability of (72b) follows from the fact that given constituents must avoid focus marking (Schwarzschild 1999).[3]

(72) a. He   [COMPRADO]$_F$ el   auto, no alquilado.
        have.1sg bought   the car   not rented
        'I have BOUGHT the car, not rented.'

      b. * [Comprar]$_{CT}$, he   [COMPRADO]$_F$ el   auto, no alquilado.
        to.buy   have.1sg bought   the car   not rented
        'As for buying, I have BOUGHT the car, not rented.'

The same effect is attested with any constituent that is included in Predicate 1: its counterpart within the clause cannot be focused. This is illustrated in the sentences in (73), which make minimal pairs with the acceptable examples in (56).

(73) a. * [Comprar el   auto]$_{CT}$, compré   [el   AUTO]$_F$, 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]$_{CT}$, hablé   con [COSMO]$_F$, 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]$_{CT}$, compró   [COSMO]$_F$ el   asado, no yo.
        to.buy   Cosmo   bought.3sg Cosmo   the meat not I
        'As for Cosmo buying, COSMO bought the meat, not me.'

In a sense, the "size" of Predicate 1 determines which constituents within the clause can function as the focus of the sentence. In case Predicate 1 and the clause have the same overt elements, the only available interpretation is that of verum focus, which, as discussed, involves focus marking of the polarity head Σ.[4]

(74) [Comprar el   auto]$_{CT}$, COMPRÉ   el   auto.
        to.buy   the car   bought.1sg the car
        'As for buying the car, I DID bought the car.'

We argue that the "announcing" role of Predicate 1 allows to derive one of the defining properties of the construction: the lexical-identity requirement between Predicate 1 and Predicate 2. This trait was exemplified with the pair of sentences in (44), repeated for convenience in (75). As can be seen, predicate doubling requires the same lexical items to appear in both predicates; this is arguably the most straightforward reason that has led to posit an analysis of this phenomenon in terms of multiple spell-out.

(75) a. * Comprar, tomó   cerveza.
        to.buy   drank.3sg beer

        'As for buying, she/he drank beer.'

---

[3]An alternative way of capturing this restriction is by maintaining that the clause-internal correlates of Predicate 1 are also CT-marked and, therefore, cannot receive focus marking. We take that an explanation based on givenness has the advantage of capturing in an intuitive way the anaphoric behavior of argument DPs in Predicate 2. Besides of that, both solutions seem to be equivalent.

[4]Verum focus is the only interpretation available for the "finite" predicate doubling constructions in (33). This follows from the requirement that Predicate 1 must always include all constituents within the clause, e.g., (34).

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

If, as discussed, (i) PREDICATE 1 makes explicit what the immediate QUD is about, and (ii) the sentence must address its immediate QUD, both examples in (75) involve a contradiction: the leftmost predicate indicates that the QUD is about one thing, but the rest of the sentence addresses a QUD about something else. Consider (75a). The dislocated verb *comprar* 'to buy' functions here as a contrastive topic; as such, it "announces" that the immediate QUD addressed by (75a) involves the verb *comprar*, e.g., it could be a question about whether something was bought by someone. On the other hand, the clause *tomó cerveza* 'she/he drank beer', with focus on *cerveza* 'beer', implicitly answers the question *¿qué tomó?* 'what did she/he drink?'. Thus, the contrastive topic and the clause seem to be pointing at distinct questions, which leads to the unacceptability of (75a).

(76)

$[\text{Comprar}]_{\text{CT}}$ tomó $[\text{cerveza}]_{\text{F}}$

¿Qué tomó? *'what did she/he drink?'*

¿Qué compró? *'what did she/he buy?'*
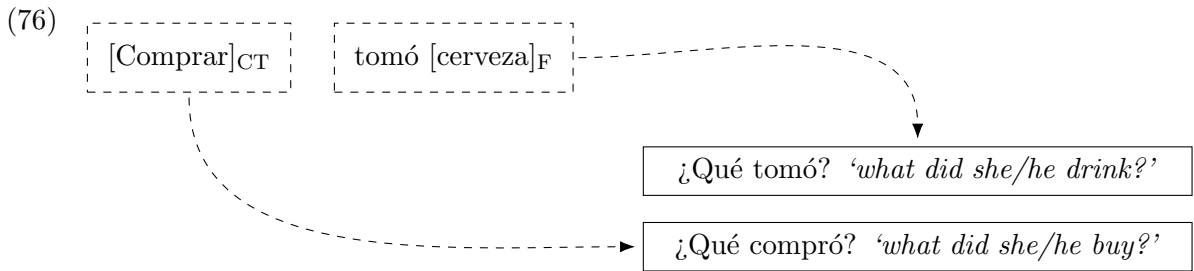
The example in (75b) receives a similar account. As a contrastive topic, the dislocated infinital phrase *comprar un auto* 'to buy a car' requires a QUD about buying a car, e.g., a question about whether someone bought a car. However, the clause *compré una moto* 'I bought a motorcycle' does not address the same QUD; for example, under the assumption that the sentence must be interpreted as involving verum focus, the clause is answering the question *¿compraste una moto?* 'did you buy a motorcycle?'. Once again, the mismatch between the content of the contrastive topic and the clause leads to unacceptability.

(77)

$[\text{Comprar un auto}]_{\text{CT}}$ COMPRÉ   una moto

¿Compraste una moto? *'did you buy a motorcycle?'*

¿Compraste un auto? *'did you buy a car?'*
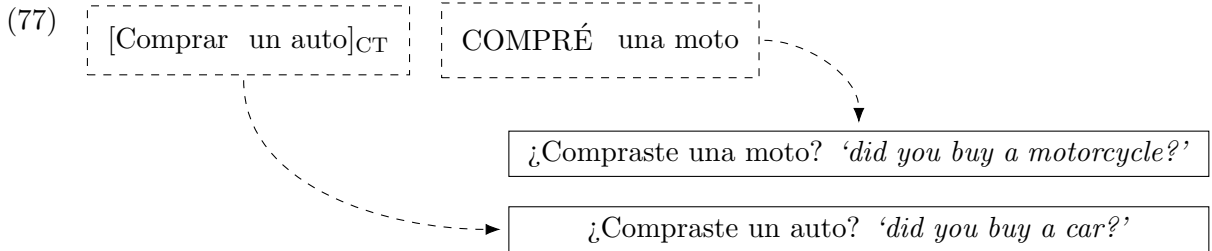
In other words, the fact that PREDICATE 1 functions as a contrastive topic allows to account for the lexical identity between the predicates in the construction without the need to appeal to movement or copy operations. At a more general level, this result supports the idea that there is more than a single linguistic mechanism that can be responsible for reduplicative patterns, and that at least one of them obeys discourse-related principles.

3.3   Island effects

As discussed in the introduction, predicate doubling exhibits island restrictions. That is, the doubling pattern becomes unacceptable if PREDICATE 2 is inside a syntactic island, e.g., an adjunct (9a), a preverbal subject (9b), a coordinate structure (9c), or a relative clause (9d). We claim that this effect is not due to (narrow) syntactic constraints, but follows from independently

motivated discourse principles. Concretely, we maintain that the examples in (9) are odd due to a mismatch similar to the one attested in (75): in each of these cases, the PREDICATE 1 requires an immediate QUD that is distinct from the (immediate) QUD addressed by the rest of the sentence. This scenario emerges whenever PREDICATE 2 is *not-at-issue* regarding an immediate QUD that would make the non-dislocated material *relevant*. To derive this result, we adopt the definitions of *At-issueness* from Simons et al. (2010) and *Relevance* from Büring (2003).

(78) AT-ISSUENESS (Simons et al. 2010: 323)
   a. A proposition p is at-issue iff the speaker intends to address the QUD via $?p$.
   b. An intention to address the QUD via $?p$ is felicitous only if:
      i. $?p$ is relevant to the QUD, and
      ii. the speaker can reasonably expect the addressee to recognize this intention.

(79) RELEVANCE (adapted from Büring 2003: 541)
   A node M in a discourse tree D is relevant iff
   a. M is assertive and $[\![M]\!]^0$ answers M's immediate QUD, or
   b. M is interrogative and at least one answer to $[\![M]\!]^0$ answers M's immediate QUD.

Consider the example in (9a), repeated for convenience in (80). As can be seen, PREDICATE 2 here appears within an adjunct island.

(80)   * Comprar, Eliana fue   al   cine   después de comprar un libro.
         to.buy   Eliana went.3SG to.the cinema after   of to.buy   a   book
         'As for buying, Eliana went to the cinema after buying a book.'

Following the generalization in (70), one would expect the immediate QUD to be built around *comprar* 'to buy', i.e., the QUD should be about someone buying something (in some place, at some time, etc.); assume for concreteness that the immediate QUD is *¿qué compró Eliana?* 'what did Eliana buy?'. Now, there is a problem with this question: the non-dislocated material in (80) does not address it. As can be observed in (81), this sentence does not provide an adequate answer for a question about buying.

(81) A: ¿Qué compró   Eliana?
            what bought.3SG Eliana
            'What did Eliana buy?'
      B: # Eliana fue   al   cine   después de comprar un libro.
            Eliana went.3SG to.the cinema after   of to.buy   a   book
            'Eliana went to the cinema after buying a book.'

In this context, the assertion in (81B) is trivially *irrelevant* as it is unable to function as an answer for (81A). The same scenario arises for every potential QUD formed around the verb *comprar* 'to buy', e.g., *¿quién compró el libro?* 'who bought the book?', *¿cuándo compró Eliana el libro?* 'when did Eliana buy the book?', and so on: an assertion about going to the cinema cannot answer them. This is the first part of the problem with the predicate doubling sentence in (80): its contrastive topic "announces" an immediate QUD that is not addressed by the rest of the sentence.

What kind of question makes the non-dislocated material in (80) *relevant*? Arguably, questions about someone going somewhere. Under the assumption that the focus of the declarative sentence is on the temporal adjunct, the following dialogue is totally acceptable.

(82)   A: ¿Cuándo fue   al   cine   Eliana?
            when   went to.the cinema Eliana
            'When did Eliana go to the cinema?'

       B: Eliana fue   al   cine   después de comprar el   libro.
          Eliana went.3SG to.the cinema after   of to.buy   the book
          'Eliana went to the cinema after buying the book.'

In this more adequate context, however, the verb *comprar* 'to buy' is not at-issue. The sentence in (82b) entails, at least, two propositions p and q:
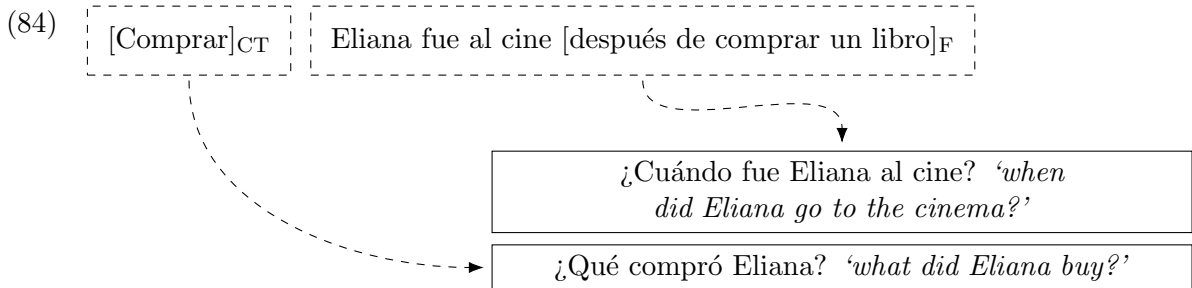
(83)   a. p = *Eliana went to the cinema after buying the book.*
       b. q = *Eliana bought a book.*

Consider the *at-issueness* of the proposition p in terms of (78). From p, we can obtain the polar question $?p$, i.e., *did Eliana go to the cinema after buying the book?*. This question denotes at least one proposition (i.e., *Eliana went to the cinema after buying the book*) answering the question in (82). Therefore, $?p$ is relevant according to (79) and, consequently, p is at-issue.

As for q, we apply the same procedure: from q, we derive $?q$, i.e., the question *did Eliana buy a book?*. In this case, no proposition denoted by this question answers *when did Eliana go to the cinema?*. In consequence, $?q$ is not relevant to the QUD, and as a result q is not-at-issue.

This introduces the second problem with the predicate doubling sentence in (80): the context that makes the non-dislocated material relevant also has the effect of relegating the content of the adjunct island as not-at-issue. This is clearly at odds with marking a constituent within it as a contrastive topic, as the conventional meaning of these elements is that there is a "bigger question" at-issue involving the CT-marked constituent and its alternatives. In other words, the verb *comprar* 'to buy' in (82b) cannot function as a contrastive topic in this syntactic context, and therefore cannot be doubled as in (80).

In sum, the reason why (80) is unacceptable resembles the problem observed with examples violating the lexical-identity requirement: the contrastive topic and its clause address distinct questions. While PREDICATE 1 requires an immediate QUD about someone buying something, the rest of the sentence is constructed as addressing an immediate question about someone going somewhere.

(84)   [Comprar]$_{CT}$ Eliana fue al cine [después de comprar un libro]$_F$

                          ¿Cuándo fue Eliana al cine? *'when
                              did Eliana go to the cinema?'*

                          ¿Qué compró Eliana? *'what did Eliana buy?'*

The same explanation can be extended to the remaining island domains in (9). Consider the case of preverbal subjects. As seen in (9b), repeated below in (85), the doubling pattern is unacceptable if PREDICATE 2 occurs within the subject island.

(85)   * Comprar, que Eliana haya   comprado un libro me sorprendió.
          to.buy   that Eliana have.3SG bought   a   book me surprised
          'As for buying, that Eliana bought a book surprised me.'

Following the generalization in (70), the immediate QUD of this sentence should be about an event of buying. Suppose this question is *¿qué compró Eliana?* 'what did Eliana buy?'. As shown in (86), the non-dislocated material in (85) cannot be taken to answer this question; the same applies for any other question about buying. Therefore, the sentence cannot address the immediate QUD "announced" by the dislocated predicate.
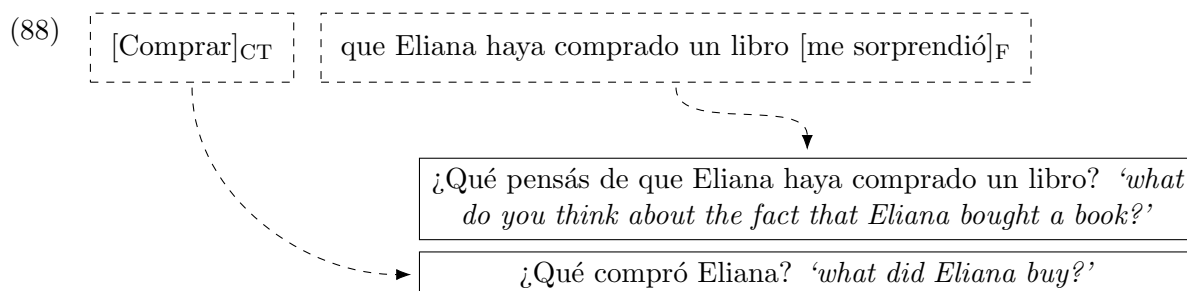
(86) A: ¿Qué compró   Eliana?
          what bought.3SG Eliana
          'What did Eliana buy?'

      B: # Que Eliana haya   comprado un libro me sorprendió.
          that Eliana have.3SG bought   a book me surprised
          'That Eliana bought a book surprised me.'

The sentence in (86B) constitutes a natural answer to questions querying about an opinion or impression about the fact that Eliana bought a book, e.g., *what do you think about the fact that Eliana bought a book?*.

(87) A: ¿Qué pensás   de que Eliana haya   comprado un libro?
          what think.2SG of that Eliana have.3SG bought   a book
          'What do you think about the fact that Eliana bought a book?'

      B: Que Eliana haya   comprado un libro me sorprendió.
          that Eliana have.3SG bought   a book me surprised
          'That Eliana bought a book surprised me.'

However, the lexical verb *comprar* 'to buy' is not-at-issue relative to this question. Consider the proposition p entailed by the subject, i.e., *Eliana bought a book*. Following the definition of *at-issueness* in (78), we retrieve as *?p* the polar question *did Eliana buy a book?*. Since no answer to this question constitutes an answer to *what do you think about the fact that Eliana bought a book?*, *?p* is not relevant to the QUD. Consequently, p is not-at-issue.

As in the previous case, we can conclude that (85) exhibits a mismatch between the contrastive topic and the rest of the sentence: on one hand, the clause is irrelevant to any immediate QUD "announced" by PREDICATE 1; on the other, an immediate QUD compatible with the non-dislocated material makes the doubling predicates to be not-at-issue. In other words, the contrastive topic and the clause address different questions.

(88) [Comprar]$_{CT}$ que Eliana haya comprado un libro [me sorprendió]$_F$

          ¿Qué pensás de que Eliana haya comprado un libro? *'what do you think about the fact that Eliana bought a book?'*

          ¿Qué compró Eliana? *'what did Eliana buy?'*

Regarding coordinate structures, consider the example in (9c), repeated below for convenience.

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

25

Once again, the immediate QUD is "announced" to be about the verb *comprar* 'to buy' in PREDICATE 1. Assume this question is *¿qué compró Eliana?* 'what did Eliana buy?'. As in previous cases, the non-dislocated material in (89) is not relevant for a question about buying.
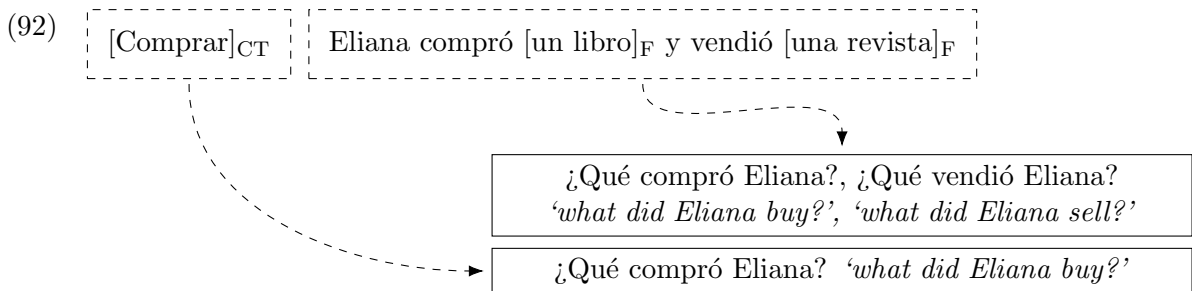
(90) A: ¿Qué compró   Eliana?
           what bought.3SG Eliana
           'What did Eliana buy?'

      B: # Eliana compró   un libro y   vendió   una revista.
           Eliana bought.3SG a   book and sold.3SG a   magazine
           'Eliana bought a book and sold a magazine.'

As the following dialogue shows, the utterance in (90B) actually addresses two distinct questions. The answer is structured as two separate assertions, each of them containing a focused constituent.

(91) A: ¿Qué compró   y   qué vendió Eliana?
          what bought.3SG and what sold.3SG Eliana
          'What did Eliana buy and what did she sell?'

      B: Eliana compró   [un libro]_F y   vendió   [una revista]_F.
         Eliana bought.3SG a   book   and sold.3SG a   magazine
         'Eliana bought a book and sold a magazine.'

What the unacceptable doubling sentence in (89) does is marking as a contrastive topic the verb *comprar* 'to buy' for both assertions at the same time. The problem is that the verb *comprar* 'to buy' is trivially not at-issue in the assertion containing the proposition *Eliana sold a magazine*. Thus, *comprar* cannot be a contrastive topic for the coordinate structure containing these assertions, an therefore cannot be doubled in (89).[5]

As in the previous cases, the unacceptability of (89) can be conceived as a mismatch between the questions introduced by the contrastive topic and the rest of the utterance. That is, while PREDICATE 1 "announces" a question about buying, its associated clause addresses a list of two questions.

(92)   [Comprar]_CT   Eliana compró [un libro]_F y vendió [una revista]_F

                       ¿Qué compró Eliana?, ¿Qué vendió Eliana?
                       'what did Eliana buy?', 'what did Eliana sell?'

                       ¿Qué compró Eliana? *'what did Eliana buy?'*

As for relative clause islands, the explanation follows the same line of reasoning. Take the example in (9d), repeated for convenience in (93).

_____

[5]The immediate prediction of this analysis is that if both coordinated assertions are about an event of buying, the doubling pattern should be acceptable. This is borne out, as the following sentence shows.

   i. Comprar, Jorge compró   un auto y   Eliana (compró)   una casa.
       to.buy   Jorge bought.3SG a   car and Eliana bought.3SG a   house
       'As for buying, Jorge bought a car and Eliana (bought) a house.'

(93) *Comprar, vi   a   la mujer que compró   el libro.
      to.buy   saw.1SG DOM the woman that bought.3SG the book

      'As for buying, I saw the woman who bought the book.'

As in the previous cases, PREDICATE 1 indicates that the immediate QUD should be about an event of buying. Assume that the immediate QUD here is *¿qué compró Eliana?* 'what did Eliana buy?'. As the dialogue in (94) shows, the non-dislocated material in (93) is irrelevant to this question.

(94) A: ¿Qué compró   la mujer?
          what bought.3SG the woman
          'What did the woman buy?'

     B: #Vi   a   la mujer que compró   el libro.
          saw.1SG DOM the woman that bought.3SG the book

          'I saw the woman who bought the book.'

The proper context for this answer is a question about seeing, as exemplified in (95).

(95) A: ¿A   quién viste?
         DOM who   saw.2SG
         'Who did you see?'

     B: Vi   a   la mujer que compró   el libro.
         saw.1SG DOM the woman that bought.3SG the book

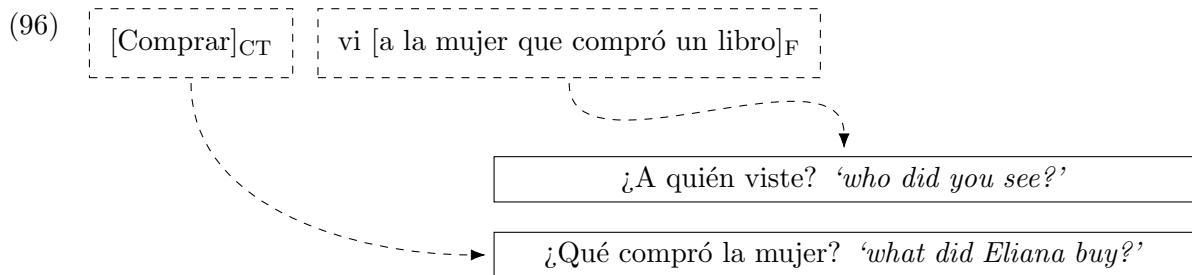   'I saw the woman who bought the book.'

However, the proposition *the woman bought a book* is not at-issue here, i.e., no answer to the question *did the woman buy a book* answers (95A). Therefore, *comprar* 'to buy' cannot be marked as a contrastive topic.

Once again, the problem with (93) can be modeled as a conflict between the contrastive topic and its associated clause: they introduce different questions.[6]

---

[6]Vicente (2007: 80) points out that predicate doubling improves if the DP that contains the relative clause is indefinite.

   i.   Ganar, solo he   visto a   uno que haya   ganado.
        to.win only have.1SG seen DOM one that have.3SG won

        'As for winning, I have only seen a person who has won.'

   ii. *Ganar, solo he   visto al   que ha   ganado.
        to.win only have.1SG seen DOM.the that have.3SG won

        'As for winning, I have only seen the person who has won.'

A potential explanation in terms of the analysis developed here can be sketched as follows. First, (i) constitutes an acceptable answer to the QUD *did any person win?*. In this case, the matrix predicate *he visto* 'have seen' seems to receive a parenthetical interpretation (Simons 2007), as the embedded clause constitutes the "main point" of the utterance. Thus, both the contrastive topic and the rest of the sentence address a question about someone winning something. As for (ii), the embedded proposition cannot be taken to answer the QUD *did any person win?*, as the presence of the definite determiner presupposes that someone won. Therefore, a mismatch between PREDICATE 1 and the clause arises: while the former requires an immediate QUD about winning, the rest of the sentence addresses a QUD about seeing.

(96)

| [Comprar]$_{CT}$ | vi [a la mujer que compró un libro]$_F$ |

¿A quién viste? *'who did you see?'*

¿Qué compró la mujer? *'what did Eliana buy?'*

Predicate doubling is not subject to every island restriction attested in the literature. The example in (97B) shows that PREDICATE 2 can appear within a complex NP. The acceptability of this pattern is unexpected under a movement-based analysis of the construction.[7]

(97) A: ¿Qué hizo   tu   vecino   con toda la plata qué ganó?   ¿Compró
         what did.3SG your neighbour with all   the money that won.3SG bought.3SG
         algo   interesante, por lo menos?
         something interesting by it less
         'What did your neighbour do with all the money he won? Did he buy something
         interesting, at least?'

      B: Comprar, escuché   el   rumor (de) que compró   un auto.
         to.buy   heard.1SG the rumour of that bought.3SG a   car
         'As for buying, I heard the rumour that he bought a car.'

This pattern fits the approach advanced so far. As Simons (2007) points out, in some cases an embedded sentence can be the "main point" of the utterance. For example, in (98) it is the content of the completive clause that constitutes an answer to the question. As for the matrix predicate, Simons argues that it receives a *parenthetical* interpretation. Concretely, it functions as a kind of evidential, signaling the source and reliability of the information in the embedded clause.

(98) A: Who was Louise with last night?
      B: I heard that she was with Bill.

An analogous example can be built from the predicate doubling sentence in (97B): as in previous cases, PREDICATE 1 indicates that the immediate QUD is about an event of buying, e.g., *¿Qué compró el vecino?* 'what did the neighbour buy?'. However, unlike the islands discussed before, the non-dislocated material in (97B) does constitute an adequate answer for this question.

(99) A: ¿Qué compró   el   vecino?
         what bought.3SG the neighbour
         'What did the neighbour buy?'

      B: Escuché   el   rumor de que compró   un auto.
         heard.1SG the rumour of that bought.3SG a   car
         'I heard the rumour that he bought a car.'

Following Simons, we claim that the matrix predicate *escuché el rumor* 'I heard the rumour' exhibits in both (97B) and (99B) a parenthetical interpretation, and that the "main point" of the utterance is expressed in the embedded clause. This allows the proposition p = *Eliana compró un*

---

[7]According to Vicente (2007, 2009), this type of doubling is ungrammatical. However, we find sentences like (97B) perfectly acceptable, especially when employed in the right context. This is also the judgement of most of our informants.

libro 'Eliana bought a book' to be at-issue relative to the immediate QUD *¿qué compró Eliana?* 'what did Eliana buy?' in both cases. The result for the analysis of (97) is that it is acceptable because PREDICATE 1 and the rest of the sentence can address the same immediate QUD about buying.

(100)

```
┌─────────────┐ ┌──────────────────────────────────────────┐
│ [Comprar]_CT │ │ escuché el rumor de que compró [un libro]_F │
└─────────────┘ └──────────────────────────────────────────┘
```

┌───┐
│ ¿Qué compró Eliana? *'what did Eliana buy?'* │
└───┘

A corollary of the analysis developed here is that "island effects" concerning predicate doubling are, in a sense, illusory. That is, no structural restriction on movement is at play simply because predicate doubling does not involve syntactic movement. As seen, our account exploits information properties that correlate with syntactic islands, i.e., the fact that they are usually not at issue, to explain why constituents in those domains cannot function as contrastive topics. Whether a similar approach can be extended to other island phenomena is an interesting question.[8]

4 Further predictions

4.1 Genus-species effects and partial identity

The Spanish predicate doubling construction displays some exceptions to the lexical-identity requirement. Following Cable (2004), we refer to the first of these as *genus-species* splits. As can be seen in (101), the relevant examples involve a mismatch between the lexical content of bare nouns within the duplicates. As noticed by Cable, these patterns offer additional evidence supporting a base-generation analysis of predicate doubling.

(101) a. Comer pescado, como   (solo) [atún]_F.
           to.eat fish   eat.1SG only tuna
           'As for eating fish, I eat tuna.'

       b. Leer   libros, leo   (solo) [novelas]_F.
           to.read books read.1SG only   novels
           'As for reading books, I read novels.'

There are two important conditions that these constructions must meet in Spanish. First, the focus of the sentence must necessarily fall on the bare noun within PREDICATE 2, e.g., obtaining a verum focus interpretation is impossible in these cases.

(102) a. * Comer pescado, COMO atún.
             to.eat fish   eat.1SG tuna
             'As for eating fish, I do eat tuna.'

---

[8]Our account resembles the mechanisms advanced within functional explanations of island restrictions (e.g., Erteschik-Shir 1973, Van Valin 1993, Ambridge & Goldberg 2008). These proposals share the idea that constraints on long distance dependencies arise from clashes of information structure properties. In particular, Ambridge & Goldberg (2008) advance the hypothesis that constituents that move to the matrix clause are part of the main assertion of the sentence and, as such, cannot be generated within a syntactic island, because these are presupposed/backgrounded.

While our analysis certainly supports the idea that information structure has a part in explaining island phenomena, we do not believe it to be the only relevant factor. For instance, complex NPs in Spanish are opaque for extraction despite the fact they can be at-issue.

b. * Leer   libros, LEO   novelas.
       to.read books read.1SG novels
       'As for reading books, I do read novels.'

Second, the bare noun within PREDICATE 2 must be an *hyponym* of its counterpart in PREDICATE 1. This is respected in (101), where *atún* 'tuna' is a hyponym of *pescado* 'fish', and *novelas* 'novels' is a hyponym of *libros* 'books'. As shown in (103), the inverse pattern, i.e., with the *hyperonym* within PREDICATE 2, leads to unacceptability.[9]

(103) 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 novels   read.1SG books
           'As for reading novels, I read books.'

We argue that the existence of genus-species splits in Spanish predicate doubling follows from the general account advanced so far. In few words, sentences such as those in (101) are possible because the clause still manages to address the immediate QUD "announced" by the contrastive topic. That is, despite of the differences between PREDICATE 1 and PREDICATE 2, (101a) successfully answers a question about eating fish, while (101b) successfully answers a question about reading books.

To illustrate the functioning of genus-species splits and the role of hyponymy in the construction, we employ traditional componential analysis (e.g., Katz & Fodor 1963), i.e., we take that the meaning of a lexical item may be decomposed into a set of primitive semantic features. Under this view, hyponymy can be understood as an inclusion relation between sets. For instance, if a noun like *pescado* 'fish' has the features [+ ANIMAL] and [+ GILLS], its hyponym *atún* 'tuna' may be said to consist of the features [+ ANIMAL], [+ GILLS] and [+ EDIBLE], which conform a superset of the features of *pescado*; the same applies for *libros* 'books' and *novelas* 'novels': the latter can be said to be a type of book with some additional specific features. Schematically, we adopt the description in (104) to account for both cases.

(104) a. *hyponym* = N $_{[+A]\ [+B]\ [+C]}$
       b. *hyperonym* = N $_{[+A]\ [+B]}$

By adopting this description, we advance that the information structure of predicate doubling constructions with genus species splits follows the scheme in (105). As can be seen, we take that focus is assigned to whatever semantic feature(s) that characterises the hyponym as a specific type of individual within the kind denoted by the hyperonym in PREDICATE 1; the "redundant" features of the hyponym (i.e., [+A] and [+B]) are given due to the prior mention of the hyperonym, and thus cannot be focused. Notice that, according to this representation, there actually is identity between PREDICATE 1 and PREDICATE 2: both consist on the lexical verb plus the features of the hyperonym.

---

[9]Vicente (2009: 170) argues that Spanish predicate doubling does not exhibit genus-species effects. To support this claim, he offers the following example.

(i)   * Leer   un tebeo   japonés, Juan ha leído Akira.
        to.read a   comic.book Japanese Juan has read Akira
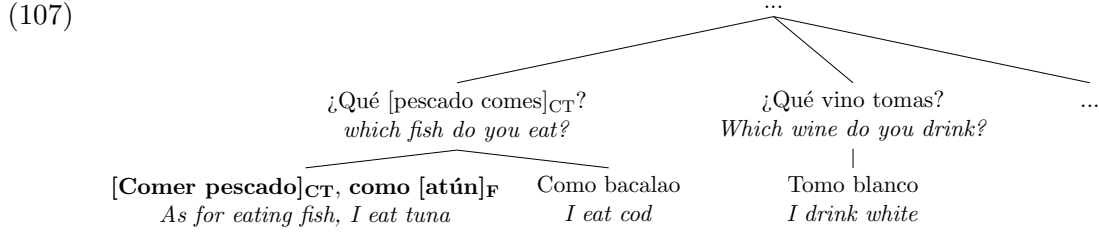   'As for reading a Japanese comic book, Juan has read Akira.'

We consider that this sentence is unacceptable because the relation between *Akira* and *un tebeo japonés* 'a Japanese comic book' is one of world knowledge, and does not involve lexical hyponymy.

(105) $\underbrace{\text{V}_{inf} \quad \text{N}_{\text{[+A] [+B]}}}_{\textit{contrastive topic}} \quad \dots \quad \text{V}_{fin} \quad \text{N}_{\text{[+A] [+B]}} \quad \underbrace{\text{[+C]}}_{\textit{focus}}$
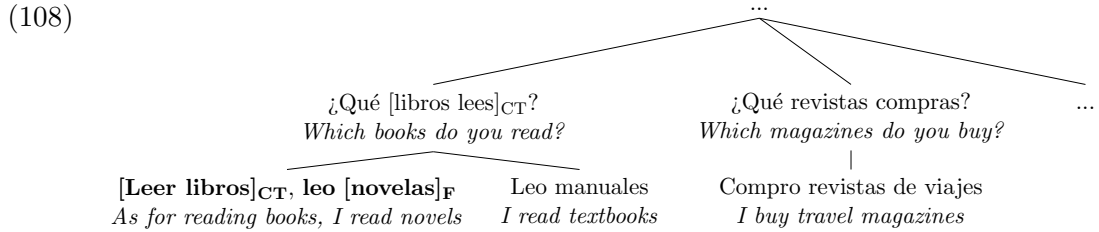
In a sense, this analysis makes the sentences in (101) similar to rather standard cases of predicate doubling such as (106): in both situations, an expression denoting a kind in PREDICATE 1 is further specified within PREDICATE 2 to refer to a sub-kind.

(106) [Comer pescado]$_{\text{CT}}$, como   pescado [frito]$_{\text{F}}$.
       to.eat fish   eat.1SG fish   fried
       'As for eating fish, I eat fried fish.'

Thus, we take that the sentences in (101) address questions asking about specific members of a kind. For the case in (101a), this could be a QUD like *¿qué pescado comes?* 'what fish do you eat?'. Notice that this question not only is compatible with the contrastive topic in (101a), but also retrieves the adequate set of focus alternatives. This is schematically represented in (107).[10]

(107)

    ¿Qué [pescado comes]$_{\text{CT}}$?   ¿Qué vino tomas?   ...
    which fish do you eat?   *Which wine do you drink?*

[**Comer pescado**]$_{\text{CT}}$, **como [atún]$_{\text{F}}$** Como bacalao   Tomo blanco
As for eating fish, I eat tuna   *I eat cod*   *I drink white*

Similarly, the predicate doubling sentence in (101b) behaves as addressing a QUD that asks about which type of books are the ones that the speaker reads. The following discourse structure illustrates the alternatives evoked by this example.

(108)

    ¿Qué [libros lees]$_{\text{CT}}$?   ¿Qué revistas compras?   ...
    Which books do you read?   *Which magazines do you buy?*

[**Leer libros**]$_{\text{CT}}$, **leo [novelas]$_{\text{F}}$** Leo manuales   Compro revistas de viajes
As for reading books, I read novels *I read textbooks*   *I buy travel magazines*

One could wonder why is that genus-species splits are not attested with the lexical verbs. As the following example from Vicente (2009: 170) shows, the lexical-identity requirement holds without exception for these elements.

---

[10]One could attempt to apply Büring's (2003) CT-Value Formation algorithm in (49) to the abstract representation in (105) to derive the same result. As a first step, the QUD of this representation would be formed by replacing the focused feature [+C] for the interrogative pronoun *which*, and moving it to the left (notice that the addendum in (52) is also employed). Assuming that the features [+A] and [+B] together refer to the noun *fish*, and that the lexical verb is *to eat*, the resulting question would be *which fish do you eat?*

(i) [V$_{inf}$ N$_{\text{[+A] [+B]}}$]$_{\text{CT}}$ V$_{inf}$ N$_{\text{[+A] [+B]}}$ [[+C]]$_{\text{F}}$ $\longrightarrow$ Which [V$_{inf}$ N$_{\text{[+A] [+B]}}$]$_{\text{CT}}$?

From this question, a set of alternative questions can be formed by replacing the CT-marked segment (i.e., the predicate *eat fish*) for contextually relevant alternatives of the same form.

(ii) Which $R(x)$? $\longrightarrow$ {which fish do you eat?, which wine do you drink?, ... }

(109)   * Viajar,   Juan ha   volado a Amsterdam.
          to.travel Juan has.3SG flown   to Amsterdam
          'As for traveling, Juan has flown to Amsterdam.'

The answer seems to follow from the analysis advanced so far. As discussed, genus-species splits require hyponymy, which is a lexical relation that holds between nouns but not verbs. The latter have been argued to establish a semantic type of relation: *troponymy* (Fellbaum & Miller 1990, Fellbaum 2002). Thus, while nouns may enter into *X-is-a-Y* statements that relate kinds (e.g., a *tuna* is a *fish*), verbs may relate to each other through *to-X-is-to-Y-in-some-manner* statements, which describe sense relations that are much more polysemous and complex. For instance, a verb like *fly* can be defined in terms of the "core verb" *move* as in *to fly is to move through the air*; a verb like *travel* can be characterised in terms of the "core verb" *go* as in *to travel is to go somewhere far*; and so on. It seems clear that these relations are not amenable to a privative feature system as the one assumed within componential analysis, and therefore cannot be defined in terms of set inclusion. In other words, verbs simply do not fit the type of account sketched in (105).

At a more general level, our analysis suggests that what triggers the genus-species split is a QUD asking the speaker to specify a certain sub-kind pertaining to a kind. Bare nouns, both as mass nouns like *pescado* 'fish' in (101a) or as bare plurals like *libros* 'books' in (101b), have been classically observed to denote kinds (Carlson 1977, Chierchia 1998), a property that verbs simply do not share. Therefore, it is rather unsurprising that a pattern expressing inclusion relations between kinds exploit bare nouns rather than verbs.

Another exception to the lexical-identity requirement is exemplified in (110). As can be seen, PREDICATE 1 contains an argument headed by the indefinite determiner *un* 'a', while PREDICATE 2 has a the proximal demonstrative pronoun *este* 'this' occupying the same position. We refer to these mismatches as *partial identity* cases.

(110)   Comprar un auto, voy   a comprar [este]$_F$ auto, no aquel.
          to.buy   a   car   go.1SG to buy   this   car   not that
          'As for buying some car, I will buy this car, not that one.'

Unlike the examples in (20), this mismatch does not involve an anaphoric relation between *un auto* 'a car' and *este auto* 'this car', as the latter needs to be interpreted deictically, e.g., a relevant context for this sentence could be in a car dealership, where the speaker is able to choose between many cars.
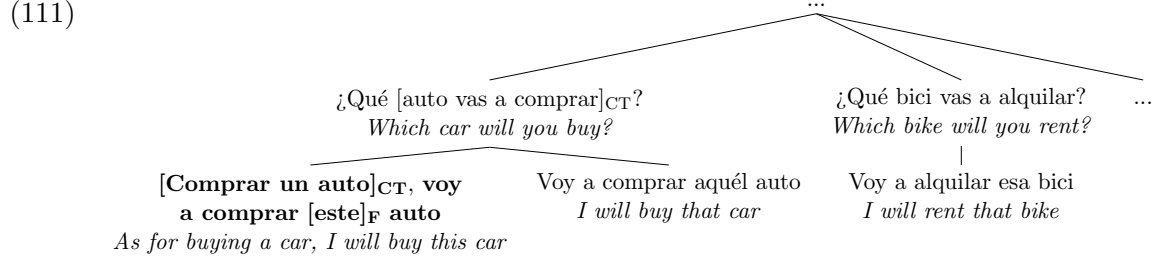
Just as genus-species effects, the pattern in (110) is problematic for a movement-based analysis of predicate doubling, as two distinct lexical items appear in constituents that allegedly form a chain.[11] The construction, however, can be easily accounted for under the assumption that PREDICATE 1 is a contrastive topic that makes explicit part of the immediate QUD of the sentence. The dislocated infinitival phrase in (110) "announces" that the QUD is about buying a car; a

---

[11]A movement analysis of (110) actually posits additional issues. For instance, this type of pattern allows for NP-ellipsis.

(i)   Comprar un auto, voy   a comprar el   ~~auto~~ rojo.
        to.buy   a   car, go.1SG to buy   the car   red
        'As for buying a car, I will buy the red one.'

As shown in (i), the noun *auto* 'car' in PREDICATE 1 serves as antecedent for the elliptical site within PREDICATE 2. If the predicates were copies, i.e., overt versions of the "same" constituent, this would lead to the awkward conclusion that a constituent can license its own ellipsis. This prediction seems particularly strong within a multidominance system (e.g., Gärtner 2002).

question like *¿qué auto vas a comprar?* 'which car will you buy?' satisfies this condition, at the time that retrieves the appropriate discourse structure for the sentence.

(111)

¿Qué [auto vas a comprar]꜀ᴛ?
Which car will you buy?

¿Qué bici vas a alquilar?
Which bike will you rent?
...

[Comprar un auto]꜀ᴛ, voy a comprar [este]ꜰ auto
As for buying a car, I will buy this car

Voy a comprar aquél auto
I will buy that car

Voy a alquilar esa bici
I will rent that bike

In sum, two cases of predicate doubling that seemingly ignore the lexical-identity requirement receive an straightforward analysis under the assumption that Pʀᴇᴅɪᴄᴀᴛᴇ 1 is a base-generated contrastive topic. As discussed, the existence of these patterns is, in principle, unexpected under a movement-based account.

4.2 Asymmetries with factive clauses

As is well-known, factive clauses induce weak island effects. Roughly speaking, this means that they allow argument extraction but ban adjunct movement.[12] Crucially, clauses selected by both cognitive (112) and emotive factives (113) introduce the same kind of restriction on syntactic movement.

(112) a. ¿A quién sabés   que invitó   Jorge a la fiesta?
            to who   know.2ꜱɢ that invited3ꜱɢ Jorge to the party
            'Who do you know that Jorge invited to the party?'

       b. *¿Cómo sabés   que bailó   Jorge?
            how   know.2ꜱɢ that danced.3ꜱɢ Jorge
            'How do you know that Jorge danced?'

(113) a. ¿A quién lamentás   que haya   invitado Jorge a la fiesta?
            to who   know.2SG that have.3SG invited   Jorge to the party
            'Who do you regret that Jorge invited to the party?'

       b. *¿Cómo lamentás   que haya   bailado Jorge?
            how   regret.2ꜱɢ that have.3ꜱɢ danced Jorge
            'How do you regret that Jorge danced?'

If predicate doubling involved A'-movement, we would expect it to display the same behaviour with both cognitive and factive emotives, just as wh-movement does in (112) and (113). However, predicate doubling with 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, e.g., (114a), it is unacceptable with clauses selected by emotive factives, e.g., (114b).

(114) a. Leer,   sé   que leyó.
            to.read know.1ꜱɢ that read3SG
            'As for reading, I know that he did read.'

---

[12]Of course, weak island restrictions cannot be reduced to the argument-adjunct distinction. See Szabolcsi (2006) for an overview.

b. *Leer, lamento que haya leído.
   to.read regret.1SG that have.3SG read
   'As for reading, I regret that he did read.'

We claim that the asymmetry in (114) can be straightforwardly explained under the analysis proposed here. As observed by Hooper & Thompson (1973) and Simons (2007), cognitive factives may exhibit parenthetical interpretations in certain contexts, while emotive factives cannot. As previously discussed, this means that the assertion of an utterance can be contained in a clause selected by a cognitive factive.[13] Consider, for instance, the contrast between the answers (115) and (116): while the clause embedded under the cognitive factive *discovered* can be taken to answer the question *what did Eliana buy?*, the one selected by the emotive factive *regretted* cannot.

(115) A: What did Eliana buy?
      B: Jorge discovered that she bought a book.

(116) A: What did Eliana buy?
      B: #Jorge regretted that she bought a book.

Coming back to the asymmetry in (114), we argue that predicate doubling involving cognitive factives is possible because they can have parenthetical readings. To begin with, notice that the sentence in (114a) can answer the polar question *did Eliana read the book?*:

(117) A: ¿Leyó   el libro Eliana?
         read.3SG the book Eliana
         'Did Eliana read the book?'
      B: Leer, sé   que lo leyó.
         to.read know.1SG that it read.3SG
         'As for reading, I know that she did read it.'

In this case, the matrix verb *sé* 'I know' is interpreted parenthetically, and the embedded clause constitutes the main point of the utterance. In other words, the sentence addresses the QUD *did Eliana read the book?*, and not the question *what do you know?*. Since the the generalization in (70) is met, i.e., the immediate QUD can be taken to includes the lexical content of PREDICATE 1, the doubling pattern is acceptable.

Regarding emotive factives, (114b) cannot be taken to answer the question *did Eliana read the book?*:

(118) A: ¿Leyó   el libro Eliana?
         read.3SG the book Eliana
         'Did Eliana read the book?'

---

[13]Karttunen (1971) observes that cognitive factives, contrary to emotives, can lose their factivity in certain contexts, such as the antecedent of a conditional sentence. For instance, in (ia) there is a possibility that the speaker has not told the truth. That means that in this case the truth of the complement of *realize* is not presupposed. In (ib), on the contrary, the truth of the embedded clause is always inferred. For this reason, Karttunen calls cognitive factives 'semi-factives'.

(i) a. If I realize later that I have not told the truth, I will confess it to everyone.
        ↛ *The speaker didn't tell the truth*
     b. If I regret later that I have not told the truth, I will confess it to everyone.
        → *The speaker didn't tell the truth*

B: # Leer,   lamento   que lo haya   leído.
       to.read regret.1SG that it have.3SG read
       'As for reading, I regret that she did read it.'

As mentioned, emotive factives cannot be interpreted parenthetically: a sentence like *I regret that Eliana read the book* answers a question about regretting, e.g., *what do you regret?*, but not one about reading, e.g., *did Eliana read the book?*. In consequence, the contrastive topic in (118) has an incoherent use: PREDICATE 1 *leer* 'to read' indicates that the immediate QUD is about reading, but the sentence addresses a question about regretting. Thus, the sentence is unacceptable.

5 Concluding remarks

Predicate doubling in Spanish is usually analysed as an instance of multiple copy pronunciation, i.e., what we have called here PREDICATE 1 and PREDICATE 2 are taken to be elements pertaining to the same movement chain. In this paper, we have shown that such an analysis faces non-trivial problems: the phenomenon does not display reconstruction effects, and the doubled predicates do not behave as predicted by the copy theory of movement (there is no formal identity between them, and their constituents are related through rather standard anaphoric means). Moreover, it has been shown that island sensitivity does not offer support for a movement-based analysis of the construction, as doubling patterns that do not seem to involve movement also display similar restrictions.

We have advanced a base-generation analysis of predicate doubling that derives the seemingly movement-related properties of the construction from independently motivated discourse principles. To begin with, we showed that PREDICATE 1 is a contrastive topic in Büring's (2003) sense, i.e., it introduces a set of alternative questions to the immediate QUD. This characterization allows to explain why the duplicates in the construction must involve the same lexical verb. Since PREDICATE 1 indicates the defining information of the immediate QUD, the rest of the sentence must be able to answer a question about that same verb. If the verbs do not match, the sentence is predicted to be unacceptable since the contrastive topic and the clause address distinct questions.

A similar mismatch allowed us to account for island sensitivity in the construction. When PREDICATE 2 is within an island, (i) the non-dislocated material of the sentence is irrelevant for the QUD introduced by the contrastive topic, while (ii) the doubled predicate is not at-issue relative to the question addressed by the main assertion. In other words, contrastive topic and clause address distinct questions if islands are involved. Moreover, we showed that complex NP islands allow predicate doubling; this is expected, as they can be interpreted parenthetically, and the embedded proposition can be at-issue.

Moreover, our proposal is further supported by two phenomena that find no straightforward account under a movement-based analysis of predicate doubling. On one hand, the behavior of hyponyms and hyperonyms in genus-species splits is successfully captured by our analysis. On the other, we account for the asymmetrical availability of predicate doubling with cognitive and emotive factives under the observation that only the former can be interpreted parenthetically.

If on the right track, our treatment of Spanish predicate doubling demonstrates that defining traits of movement dependencies can also be found outside narrow syntax. That is, the copy operation cannot be the only linguistic mechanism responsible for reduplicative patterns, and sensitivity to islands cannot be considered an infallible diagnosis for movement. Crucially, discourse seems to be able to mimic to a certain extent these characteristics.

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.

Ambridge, Ben & Adele E. Goldberg. 2008. The island status of clausal complements: evidence in favor of an information structure explanation. *Cognitive Linguistics* 19(3). doi:10.1515/cogl.2008.014.

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

Cable, Seth. 2004. Predicate clefts and base-generation: Evidence from Yiddish and Brazilian Portuguese. Manuscript, MIT.

Carlson, Gregory N. 1977. *Reference to kinds in English*. Amherst: University of Massachusetts dissertation.

Chierchia, Gennaro. 1998. Reference to kinds across language. *Natural Language Semantics* 6(4). 339–405. doi:10.1023/a:1008324218506.

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.

Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: a life in language*, 1–52. Cambridge, MA: MIT Press.

Erteschik-Shir, Nomi. 1973. *On the nature of island constraints*. Massachusetts, MA: MIT dissertation.

Escandell-Vidal, Victoria. 2011. Verum focus y prosodia: cuando la duración (sí que) importa. *Oralia: Análisis del discurso oral* (14). 181–202.

Fanselow, Gisbert & Anoop Mahajan. 2000. Towards a minimalist theory of wh-expletives, wh-copying, and successive cyclicity. In Uli Lutz, Gereon Müller & Arnim von Stechow (eds.), *Wh-scope marking*, 195–230. Amsterdam: John Benjamins.

Fellbaum, Christiane. 2002. On the semantics of troponymy. In Rebecca Green, Carol A. Bean & Sung Hyon Myaeng (eds.), *The semantics of relationships*, chap. 2, 23–34. Dordrecht: Springer.

Fellbaum, Christiane & George A. Miller. 1990. Folk psychology or semantic entailment? Comment on Rips and Conrad (1989). *Psychological Review* 97(4). 565–570. doi:10.1037/0033-295x.97.4.565.

Gärtner, Hans-Martin. 2002. *Generalized transformations and beyond*. Berlin: De Gruyter.

Goodhue, Daniel. 2018. *On asking and answering biased polar questions*: McGill University dissertation.

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

Holmberg, Anders. 2016. *The syntax of yes and no*. Oxford: Oxford University Press.

Hooper, Joan & Sandra Thompson. 1973. On the applicability of root transformations. *Linguistic inquiry* 4(4). 465–497.

Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.

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.

Karttunen, Lauri. 1971. Some observations on factivity. *Papers on Linguistics* 4(1). 55–69.

Katz, Jerrold J. & Jerry A. Fodor. 1963. The structure of a semantic theory. *Language* 39(2). 170–210.

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

Koopman, Hilda. 1984. *The syntax of verbs*. Dordrecht: Foris.

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.

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.

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

Roberts, Craige. 1996. Information structure: Towards an integrated formal theory of pragmatics. In Jae Hak Yoon & Andreas Kathol (eds.), *OSUWPL Volume 49: Papers in Semantics*, 35–57. Columbus: The Ohio State University Department of Linguistics.

Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1(1). 75–116.

Saab, Andrés. 2011. On verbal duplication in River Plate Spanish. In Janine Berns, Haike Jacobs & Tobias Scheer (eds.), *Romance languages and linguistic theory*, 305–322. Leiden: John Benjamins Publishing Company. doi:10.1075/rllt.3.18saa.

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.

Samko, Bern. 2016. *Syntax & information structure: The grammar of English inversions*: UC Santa Cruz dissertation.

Schwarzschild, Roger. 1999. GIVENness, AvoidF and other constraints on the placement of accent. *Natural Language Semantics* 7(2). 141–177. doi:10.1023/a:1008370902407.

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

Simons, Mandy, Judith Tonhauser, David Beaver & Craige Roberts. 2010. What projects and why. In Nan Li & David Lutz (eds.), *Proceedings of SALT 20*, 309–327. CLC Publications.

Szabolcsi, Anna. 2006. Strong vs. weak islands. In Martin Everaert & Henk van Riemsdijk (eds.), *The blackwell companion to syntax*, vol. 4, 479–532. Oxford: Blackwell.

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

Van Valin, Robert. 1993. A synopsis of Role and Reference Grammar. In Robert Van Valin (ed.), *Advances in Role and Reference Grammar*, chap. 1, 1–164. Amsterdam: John Benjamins.

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.