

## Ellipsis requires syntactic and semantic identity. Evidence from Fragment Questions in Spanish

Laura Stigliano\*

**Abstract.** Based on novel data from an understudied type of ellipsis in Spanish—which I refer to as *Fragment Questions*—I argue for the need of both semantic and syntactic identity conditions to license ellipsis. In particular the TP is subject to syntactic identity, and the domain above that is subject to semantic identity. Fragment Questions are elliptical sentences interpreted as wh-questions. They have a follow-up meaning and, unlike other types of sentential ellipsis, they require a wh-phrase to go unpronounced, although there’s no explicit wh-question or wh-phrase in the antecedent. In this paper, I analyze Fragment Questions as the result of ellipsis of a wh-question from which a Contrastive Topic has moved.

**Keywords.** ellipsis; identity; fragment questions; Spanish

**1. Introduction.** Based on the analysis of novel data from an understudied type of ellipsis in Spanish—which I refer to as *Fragment Questions*—, I argue for the need of both semantic and syntactic identity conditions to license ellipsis. In particular, I claim that the TP is subject to syntactic identity, and that the domain above that is subject to semantic identity. Furthermore, I will claim that Fragment Questions are a type of CP-Ellipsis, namely, ellipsis of an entire CP, from which a Contrastive Topic (i.e. the remnant) has moved.

Fragment Questions,<sup>1</sup> exemplified in speaker B’s response to A in (1B) and (2B), are elliptical questions interpreted as follow-up wh-questions, as shown by speaker A’s subsequent answers to B:<sup>2</sup>

(1) A: Sonia comió pizza.  
Sonia ate pizza  
‘Sonia ate pizza.’

B: **Y Bruno?**  
**and Bruno**  
**Literal: ‘And Bruno?’**  
**Intended: ‘What about Bruno?’**  
**What did he eat?’**

A: Ensalada.  
salad  
‘Salad.’

(2) A: Sonia comió pizza.  
Sonia ate pizza  
‘Sonia ate pizza.’

B: **Y ensalada?**  
**and salad**  
**Literal: ‘And salad?’**  
**Intended: ‘What about salad?’**  
**Who ate that?’**

A: Bruno.  
Bruno  
‘Bruno.’

Unlike other types of sentential ellipsis like sluicing or *why*-stripping, Fragment Questions require a wh-phrase to go unpronounced. Crucially, this occurs even though there is no explicit wh-question or wh-phrase in the antecedent.

\* For helpful discussion and feedback, I thank the audience at the 95th LSA Annual Meeting, and especially Karlos Arregi and Jason Merchant. All mistakes and shortcomings are my own. Author: Laura Stigliano, The University of Chicago ([laurastigliano@uchicago.edu](mailto:laurastigliano@uchicago.edu)).

<sup>1</sup> See Wei (2013, 2018) on a similar construction in Mandarin Chinese.

<sup>2</sup> It’s worth mentioning that Fragment Questions in Spanish can also have a yes/no polar question meaning. However, for reasons of space, this is not going to be discussed in this paper.

In this paper I will argue that Fragment Questions in Spanish are the result of the ellipsis of a wh-question, from which a Contrastive Topic has moved, as illustrated in (3) and (4):

(3) B: Y [Bruno<sub>CT</sub>] <qué<sub>i</sub> \_\_\_ eomió t<sub>i</sub>>? = (1B)  
 and Bruno <what ate >  
 ‘And Bruno ~~what did he~~ eat?’

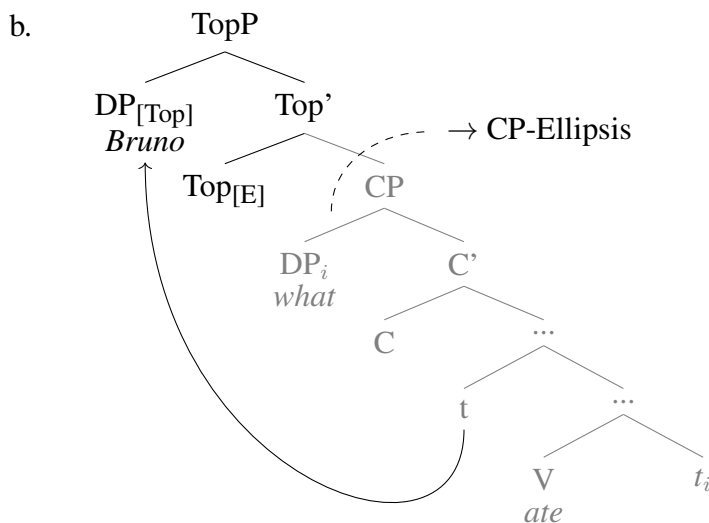
(4) B: Y [ensalada<sub>CT</sub>] <quién<sub>i</sub> eomió \_\_\_>? = (2B)  
 and salad <who ate >  
 ‘And salad ~~who~~ ate?’

In addition, I will argue that both syntactic and semantic identity conditions are needed to license this type of ellipsis.

The structure of this paper is as follows: in Section 2, I discuss the syntax of Fragment questions; in Section 3, I discuss the identity conditions needed to license Fragment Questions; Section 4 concludes.

**2. Syntax of Fragment Questions.** I claim that Fragment Questions are a type of CP-Ellipsis, namely, ellipsis of an entire CP, as illustrated in (23b):

(5) a. B: Y Bruno qué eomió?  
 and Bruno what ate  
 ‘And Bruno ~~what did he~~ eat?’



As the simplified tree above shows, the remnant—*Bruno*—is a topicalized DP that moves out of the ellipsis site. I claim that ellipsis is triggered by an [E]-feature (Merchant 2001) on Top and that ellipsis targets the complement of the head bearing the [E]-feature (the CP, in this case). As illustrated above, the E-site contains a wh-question (minus the topicalized DP).

Evidence in favor of an ellipsis analysis in general, and a move-and-delete analysis in particular, comes from various sources that will be examined in the rest of this section. In addition, I will provide evidence to show that at least some type of syntactic identity is needed to license this elliptical construction. In the first place, the possible remnants for a Fragment

Question in Spanish are exactly those constituents that can otherwise be topicalized out of a wh-question in this language. Likewise, those constituents that cannot be topicalized out of a wh-question cannot occur as Fragment Questions. In the second place, Fragment Questions are island sensitive; that is, no island repair effects are observed in this type of construction. This means that repair strategies proposed in the literature (see e.g. Abels 2011; Barros et al. 2014; Barros 2016, among many others) such as cleft/copular sources or short sources are not available here. Third, Fragment Questions display connectivity effects; in particular, they do not allow P-stranding/omission. This contrasts with other types of sentential ellipsis such as sluicing, which allows P-stranding/omission in Spanish (see, e.g. Rodrigues et al. 2009; Stigliano 2019, 2020). This, again, points against cleft or copular sources inside the ellipsis site. Last, Fragment Questions don't allow structural mismatches between the ellipsis site and its antecedent, such as voice mismatches. This provides further evidence for the need of a more strict syntactic identity (see, e.g. Merchant 2013).

2.1. POSSIBLE AND IMPOSSIBLE REMNANTS. As I mentioned, possible remnants for Fragment Questions in Spanish are exactly those constituents that can otherwise be topicalized out of a wh-question in this language. The examples in (6) and (8) show that both object DPs and PPs can be topicalized out of a wh-question. Likewise, both can occur as remnants for Fragment Questions, as shown in (7B) and (9B):

- |                                                                                                                                                                                    |                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(6) [Ensalada], quién comió ___?<br/>         salad who ate<br/>         'As for salad, who ate that?'</p>                                                                      | <p>(8) [Con Ana], quién habló ___?<br/>         with Ana who talked<br/>         'As for Ana, who talked with her?'</p>                                                                                  |
| <p>(7) A: Sonia comió pizza.<br/>         Sonia ate pizza<br/>         'Sonia ate pizza.'<br/>         B: Y ensalada?<br/>         and ensalada<br/>         Lit: 'And salad?'</p> | <p>(9) A: Sonia habló con Bruno.<br/>         Sonia talked with Bruno<br/>         'Sonia talked with Bruno.'<br/>         B: Y con Ana?<br/>         and with Ana<br/>         Lit: 'And with Ana?'</p> |

Temporal and locative adverbial phrases can also be topicalized out of a wh-question, as shown in (10) and (12). As predicted, they can also occur as remnants for Fragment Questions. This prediction is borne out, as shown in (11B) and (13B):

- |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(10) [El viernes], quién corrió ___?<br/>         the Friday who run<br/>         'On Friday, who run?'</p>                                                                                                                                                                               | <p>(12) [En la playa], quién corrió ___?<br/>         in the beach who run<br/>         'In the beach, who run?'</p>                                                                                                                                                                              |
| <p>(11) A: Sonia corrió el martes.<br/>         Sonia run the Tuesday<br/>         'Sonia run on Tuesday.'<br/>         B: Y el viernes?<br/>         and the Friday<br/>         Literal: 'And on Friday?'<br/>         Intended: 'What about Friday?'<br/>         Who run on Friday?'</p> | <p>(13) A: Sonia corrió en el parque.<br/>         Sonia run in the park<br/>         'Sonia run in the park.'<br/>         B: Y en la playa?<br/>         and in the beach<br/>         Literal: 'And in the beach?'<br/>         Intended: 'What about in the beach? Who run in the beach?'</p> |

Other possible remnants for Fragment Questions include indirect objects, frequency and manner adverbials, predicative adjectives, infinitivals, among others (examples omitted because of space restrictions).

With respect to impossible remnants, these are exactly those constituents that cannot be topicalized out of a *wh*-question. For example, a TP cannot be topicalized, as shown in (14). Likewise, it cannot occur as a Fragment Question, as shown in (15):

(14) \* $\overbrace{[\text{Compró un auto}], \text{quién}}_{\text{bought a car who}} \text{ } \_?$   
 Intended: ‘As for buying a car, who did it?’

(15) A: Sonia viajó a Buenos Aires.  
 Sonia travelled to Buenos Aires  
 ‘Sonia travelled Buenos Aires.’

B: \*Y compró un auto?  
 and bought a car  
 Intended: ‘What about buying a car? Who did it?’

Other impossible remnants include sentential adverbs, VPs, CPs, and TPs, among others (examples omitted because of space restrictions).

2.2. ISLAND SENSITIVITY. Additional evidence for an ellipsis analysis comes from the fact that Fragment Questions are island sensitive. This, again, correlates with the fact that topicalizations out of those structures are ungrammatical. In addition, these facts show that ‘repair’ strategies such as short sources or cleft/copular sources cannot be proposed here. For example, (16) shows that the extraction of an attributive adjective is ungrammatical (similar to the so-called ‘Left-Branch Extractions’ in English). As predicted, (17) shows the impossibility of these structures to occur as Fragment Questions:

(16) \* $\overbrace{[\text{Bajo}], \text{quién}}_{\text{short who hired DOM an friend}} \text{ contrató a un amigo } \_?$   
 Intended: ‘As for short, who hired a short friend?’

(17) A: Sonia contrató a un amigo alto. B: \*Y bajo?  
 Sonia hired DOM an friend tall and short  
 ‘Sonia hired a tall friend.’ Intended: ‘Who hired a short friend?’

Another example is provided below for Relative Clause islands. In particular, (18) shows that extraction out of this structure is ungrammatical, and (19) shows that, as predicted, a topicalized DP cannot occur as a Fragment Question in this context:

(18) \* $\overbrace{[\text{Francés}], \text{quién}_i \text{ conoce a alguien que habla}}_{\text{French who knows DOM someone that speaks}} \text{ } \_?$   
 Intended: ‘As for French<sub>*j*</sub>, who knows someone that speaks it<sub>*j*</sub>?’

(19) A: Sonia conoce a alguien que habla portugués. B: \*Y francés?  
 Sonia knows DOM someone that speaks Portuguese and French  
 ‘Sonia knows someone who speaks Portuguese.’ ‘And French?’

The same facts can be observed for other islands such as *whether*-islands, complex NP islands, and adjunct islands (examples omitted because of space restrictions).

As I mentioned above, the fact that island repair is not possible means that non-isomorphic repair strategies such as cleft/copular sources and short sources are not available here, and that the ellipsis site should contain a structure isomorphic to its antecedent's (that is, one that contains an island).

2.3. CONNECTIVITY EFFECTS. A third piece of evidence for an ellipsis analysis of Fragment Questions, and for the need of syntactic isomorphism comes from the fact that this type of ellipsis displays connectivity effects. In particular, P(reposition)-stranding is not allowed in Fragment Questions, as shown in the examples below. In Spanish, P-stranding is not allowed (20b), the only option being piep-piping the preposition along with the DP (20a):

- (20) a. [Con <sup>✓</sup>Ana], quién habló \_\_\_?  
           with Ana who talked  
           ‘As for Ana, who talked with her?’  
       b. \*[Ana], quién habló con \_\_.  
           Ana who talked with

Likewise, in Fragment Questions, the preposition cannot be omitted, as (21B) shows:

- (21) A: Sonia habló con Bruno.  
           Sonia talked with Bruno  
           ‘Sonia talked with Bruno.’  
       B: Y \*(con) Ana?  
           and with Ana  
           Literal: ‘And with Ana?’

These facts contrast with other types of ellipsis like sluicing, that do allow the omission of the preposition in elliptical contexts in Spanish (see, e.g. Rodrigues et al. 2009; Stigliano 2020). Furthermore, this shows that there should be isomorphism between the Antecedent and the E-site, and that alternative structures cannot be the source of this elliptical construction.

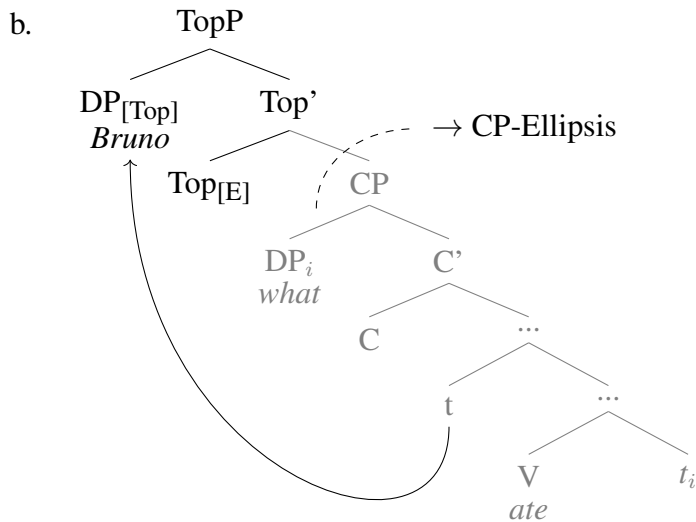
2.4. VOICE MISMATCHES ARE BANNED. The final piece of evidence for an ellipsis analysis of Fragment Questions and for the need of syntactic identity between the ellipsis site and its antecedent comes from the unavailability of voice mismatches. As the following example shows, an active sentence (22B) cannot be elided if the antecedent is a passive (22A). Crucially, a non-elliptical version of (22B) is perfectly possible in this context (22B’):

- (22) A: La casa fue destruida por Sonia.  
           the house was destroyed by Sonia  
           ‘The house was destroyed by Sonia.’  
       B: \*Y Bruno qué destruyó?  
           and Bruno what destroyed  
           Literal: ‘And Bruno?’  
           Intended: ‘What about Bruno? What did he destroy?’  
       B’: Y Bruno, qué destruyó?  
           and Bruno what destroyed  
           ‘And Bruno, what did he destroy?’

The fact that voice mismatches are impossible shows that at least some kind of syntactic identity is needed (Merchant 2013).

2.5. INTERIM SUMMARY. In this section I provided evidence to show that (i) Fragment Questions are the result of ellipsis, (ii) the E-site contains a wh-question, (iii) that remnant is topicalized out of the E-site, and (iv) some kind of syntactic identity/isomorphism is needed. My proposal is summarized in (5), repeated below in (23):

- (23) a. B: Y Bruno ~~qué~~ ~~comió~~?  
 and Bruno ~~what~~ ate  
 ‘And Bruno ~~what did he~~ eat?’



According to (23), Fragment Questions are a type of CP-Ellipsis triggered by an [E]-feature on Top, which elides its entire complement (i.e. the CP), and the remnant is a topicalized XP (in this case, the DP *Bruno*). In the following section, I extensively discuss the identity condition needed to license this type of elliptical construction.

**3. The identity condition.** I argue that both syntactic and semantic identity conditions are necessary to license ellipsis in Fragment Questions.

On the one hand, I claim that syntactic identity licenses ellipsis of the TP. This evidence comes from the data presented in the previous section, in particular island sensitivity (17) and (19), connectivity effects (21), and the unavailability of voice mismatches (22). Because of space restrictions, I won't discuss this any longer here, I refer the reader to Saab (2008), Merchant (2013), Chung (2013), Rudin (2019), Stigliano (2020), among many others for an extensive discussion of the need for syntactic identity to license ellipsis.

On the other hand, I claim that syntactic identity is not enough, and that semantic identity licenses ellipsis *above the TP*, i.e. the CP. The main reason behind this claim is that a wh-phrase is deleted although there is no indefinite or wh-phrase in the antecedent. This poses some problems for an account solely based only on strict syntactic identity. In particular, *qué* ‘what’ gets deleted but its correlate is the NP *pizza* ‘pizza’ in the antecedent. Crucially, *qué* ‘what’ and *pizza* ‘pizza’ are not syntactically identical:

- (24) A: Sonia comió pizza                      B: Y Bruno ~~qué~~ ~~comió~~?  
 Sonia ate pizza                              and Bruno ~~what~~ ate  
 ‘Sonia ate pizza’                              ‘And Bruno?’

In the next subsection I propose a focus-based semantic identity condition to license Fragment Questions (see e.g. Merchant 2001, 2018; Barros & Kotek 2019, among others).

3.1. SEMANTIC IDENTITY. In order to put forth a semantic identity condition, a few assumptions need to be made. First, I assume that focused elements have a focus semantic value (i.e.  $\llbracket \cdot \rrbracket^f$ ), which denotes the set of alternatives in the model (Rooth 1992). Second, I assume that wh-words introduce alternatives (Hamblin 1973) and that they only have a focus semantic value (Beck 2006), but don't need to be F-marked, as illustrated in (25):

- (25) a.  $\llbracket \text{what/qué} \rrbracket^o$  is undefined  
 b.  $\llbracket \text{who/quién} \rrbracket^o$  is undefined  
 c.  $\llbracket \text{what/qué} \rrbracket^f = \{x_e : x \notin \text{human}\}$   
 d.  $\llbracket \text{who/quién} \rrbracket^f = \{x_e : x \in \text{human}\}$

Finally, I follow Büring (1997, 2003) in that a topic value is a 'typed up' focus value ( $\llbracket \cdot \rrbracket^{ct}$ ), i.e. a set of sets of propositions, or a set of questions. This is illustrated in (26):

- (26) a.  $\llbracket \text{Sonia}_{CT} \text{ ate pizza}_F \rrbracket^{ct} = \{\text{What did Ana eat?}, \text{What did Bruno eat?}, \text{What did Celia eat?}, \text{What did ... eat?}\}$   
 b.  $\llbracket \text{Sonia}_{CT} \text{ ate pizza}_F \rrbracket^{ct} = \{\{x \text{ ate } y \mid y \in D_e\} \mid x \in D_e\} = \text{Who ate what?}$

With these assumptions in mind, I propose a semantic identity condition to license ellipsis in Fragment Questions. This condition is stated in (27):

- (27) Ellipsis may apply to  $CP_E$  in  $TopP_E$  iff  
 i.  $TopP_E$  has a salient antecedent  $TopP_A$ , and  
 ii.  $\llbracket TopP_A \rrbracket^{ct} \subseteq \llbracket TopP_E \rrbracket^{ct}$

(27i) specifies the need of having an appropriate salient antecedent, and (27ii) indicates that ellipsis is licensed only if the contrastive topic value of the antecedent  $TopP$  is a subset of the contrastive topic value of the  $TopP$  that contains the  $CP$  that's targeted for deletion

This is illustrated below (English words are used for ease of exposition). It can be observed that both the  $TopP$  in the Antecedent and the  $TopP$  that contains the  $CP$  that's targeted for deletion have the same contrastive topic value, namely, the multiple question *Who ate what?*:

- (28) A: Sonia comió pizza                      B: Y Bruno ~~qué~~ comió?  
       Sonia ate pizza                            and Bruno ~~what~~ ate  
       'Sonia ate pizza'                            'And Bruno?'
- a.  $\llbracket [TopP_A \text{ Sonia}_{CT} \text{ ate pizza}_F] \rrbracket^{ct} = \{\{x \text{ ate } y \mid y \in D_e\} \mid x \in D_e\} = (28b)$   
 b.  $\llbracket [TopP_E \text{ Bruno}_{CT} \text{ what}_F \text{ ate}] \rrbracket^{ct} = \{\{x \text{ ate } y \mid y \in D_e\} \mid x \in D_e\} = (28a)$

**4. Conclusions.** In this short paper I introduced a new type of ellipsis in Spanish, which I referred to as *Fragment Questions*. Fragment Questions in Spanish consist on the ellipsis of a wh-question from which a Contrastive Topic has moved. I provided evidence to argue for an elliptical account of this constructions that imposes both syntactic and semantic restrictions. Crucially, I showed that neither syntactic nor semantic identity alone can account for these facts and that a more complex identity condition is needed. This is illustrated below:



- Büring, Daniel. 2003. On d-trees, beans, and b-accents. *Linguistics and Philosophy* 26(5). 511–545. <https://doi.org/10.1023/A:1025887707652>.
- Chung, Sandra. 2013. Syntactic identity in sluicing: How much and why. *Linguistic Inquiry* 44(1). 1–44. [https://doi.org/10.1162/LING\\_a\\_00118](https://doi.org/10.1162/LING_a_00118).
- Hamblin, Charles L. 1973. Questions in montague grammar. *Foundations of Language* 10(1). 41–53.
- Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.
- Merchant, Jason. 2013. Voice and ellipsis. *Linguistic Inquiry* 44(1). 77–108. [https://doi.org/10.1162/LING\\_a\\_00120](https://doi.org/10.1162/LING_a_00120).
- Merchant, Jason. 2018. Verb-stranding predicate ellipsis in Greek, implicit arguments, and ellipsis-internal focus. In Jason Merchant, Line Mikkelsen, Deniz Rudin & Kelsey Sasaki (eds.), *A reasonable way to proceed: Essays in honor of Jim McCloskey* 229–269. University of California eScholarship.
- Rodrigues, Cilene, Andrew Nevins & Luis Vicente. 2009. Cleaving the interactions between sluicing and P-stranding. In Danièle Torck and W. Leo Wetzels (eds.), *Romance Languages and Linguistic Theory 2006: Selected papers from 'Going Romance'*, 175–198. Amsterdam: John Benjamins. <https://doi.org/10.1075/cilt.303.11rod>.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1(1). 75–116. <https://doi.org/10.1007/BF02342617>.
- Rudin, Deniz. 2019. Head-based syntactic identity in sluicing. *Linguistic Inquiry* 50(2). 253–283. [https://doi.org/10.1162/ling\\_a\\_00308](https://doi.org/10.1162/ling_a_00308).
- Saab, Andrés Leandro. 2008. *Hacia una teoría de la identidad parcial en las elipsis*. Buenos Aires: Universidad de Buenos Aires dissertation.
- Stigliano, Laura. 2019. P-stranding in ellipsis in Spanish does not arise from copular sources: Evidence from non-exhaustive readings. *Proceedings of the Annual Meeting of the North East Linguistic Society (NELS)* 49(3). 183–192.
- Stigliano, Laura. 2020. P-omission in ellipsis in Spanish: Evidence for syntactic identity. Manuscript. The University of Chicago.
- Wei, Ting-Chi. 2013. Fragment question and ellipsis in chinese. *Studies in Chinese Linguistics* 34(3). 151–198.
- Wei, Ting-Chi. 2018. Fragment questions in mandarin chinese: Topic movement and pied-piping. *Language and Linguistics* 19(2). 266–305. <https://doi.org/10.1075/lali.00010.wei>.