

# Spanish gapping with adjunct antecedents

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## 1 Intro

- Gapping is a type of **coordinate ellipsis** that descriptively deletes minimally a finite predicate and leaves two remnants, (1).
- (1) Juan compró un coche y María ~~compró~~ una casa.  
Juan bought a car and María bought a house  
'Juan bought a car and María, a house.'
- In contrast to e.g., VP-ellipsis, gapping is restricted to coordinations (e.g., Jackendoff 1971; Hankamer 1979).
  - Neither antecedent nor ellipsis site may be an embedded clause, (2-a) (*No Embedding*, e.g., Hankamer 1979; Johnson 2009; Toosarvandani 2013, 2016).
  - Spanish has been treated as a counterexample to the No Embedding generalization: the ellipsis site may be in a complement clause (e.g., Bilbúe & de la Fuente 2019; Bonke & Repp 2022), see (2-b).
- (2) a. \*Pablo ordered a beer and I suspect that Juan ~~ordered~~ a whisky.  
b. Pablo pidió una cerveza y sospecho [que Juan ~~pidió~~ un whisky].  
Pablo ordered a beer and suspect.1SG that Juan ordered a whisky  
'Pablo ordered a beer and I suspect that Juan ordered a whisky.'  
(Bilbúe & de la Fuente 2019, 13)
- We present a different anomaly in Spanish gapping that has not received a lot of attention so far: (peninsular) Spanish allows the antecedent of gapping to be inside some types, (3), though not all (4), of adjunct clauses.<sup>1</sup>

- (3) a. [<sub>CP</sub> Si yo merezco un aplauso], tú ~~mereces~~ una ovación.  
if I deserve a applause you deserve a ovation  
'If I deserve a round of applause, you deserve an ovation.'  
(Brucart 1999)
- b. Si tú has corregido 30 exámenes, yo ~~he corregido~~ 50.  
if you have corrected 30 exams I have corrected 50  
'If you have corrected 30 exams, I have corrected 50.'
- c. Si Juan compró un coche, María ~~compró~~ una casa.  
if Juan bought a car María bought a house  
'If Juan bought a car, María bought a house.'
- (4) \*{Aunque/ antes de que/ después de que} tú {corriges/ corrijas} 30  
although before after you correct.IND correct.SBJV 30  
exámenes, yo ~~corrijo~~ 50.  
exams I correct 50
- This pattern is reminiscent of English VPE/pseudo-gapping, since the antecedent for ellipsis can be found in an adjunct.
  - Spanish is different than English: (i) it only allows certain adjuncts to be antecedents for ellipsis, and (ii) it doesn't allow VPE generally.

### Claim

We propose an analysis on the basis of identity in terms of the Question-under-Discussion (QUD, Reich 2007; Barros 2014; Weir 2014) that can account for the ✓if/ ✗although pattern.  
The analysis has implications for cross-linguistic variation in coordinate ellipsis: it seems that languages in which gapping is licensed by QUD-identity = languages that allow gapping in non-coordinate contexts.

<sup>1</sup>Unless otherwise indicated, the Spanish judgments are the first author's.

## 2 The Spanish pattern

### 2.1 Conditional clause antecedents

- The adjunct clauses that allow gapping are not true conditionals: there is no hypothetical/causal/epistemic relation between the conditional clause and the consequent.<sup>2</sup>
  - Instead, they are either relevance/biscuit conditionals (*If you're hungry, there are biscuits on the counter*) or factual conditionals (*If you love him so much, why don't you marry him?*), but they don't have an exact parallel in English or German.
- (5) Context: *There are 150 exams to correct. We are working out how many each of us has to correct.*  
 \*Si tú corriges 50 exámenes, yo ~~corrijo~~ 100.  
 if you correct 50 exams I corrected 100  
 intended: 'If you correct 50 exams, it must be the case that I correct 100 ones.'
- (6) Context: *A and B are discussing their workload.*  
 A: Tengo que corregir 50 exámenes este semestre.  
 have.1SG to correct 50 exams this semester  
 'I have to correct 50 exams this semester.'  
 B: ✓Si tú corriges 50 exámenes, yo ~~corrijo~~ 100.  
 if you correct 50 exams I corrected 100  
 lit. 'If you correct 50, I correct 100.'  
 'YOU may be correcting 50 EXAMS, but I'M correcting A HUNDRED!'

Evidence:

- ① Hypothetical conditionals can be introduced by *con tal (de) que* 'provided that', conditionals that allow gapping cannot, (7).
- (7) \*Con tal de que Juan compre un coche, María ~~compre~~ una casa.  
 provided that Juan buy.SBJV a car María buy.SBJV a house
- ② Hypothetical conditionals can be focused by clefting, (8-a), but factual (and relevance) conditionals and gapping structures cannot, (8-b,c).

<sup>2</sup>This pattern of conditional clauses as antecedents for ellipsis is similar to German reduced conditionals, (i), Schwarz (1998). However, German reduced conditionals are hypothetical.

- (i) Wenn hier einer irgendwas kauft, dann ~~kauft~~ Luise ein neues Buch.  
 if here anyone anything buys then buys Luise a new book  
 'If anyone buys anything, then it is Luise who buys a new book.'

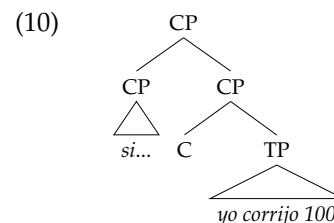
- (8) a. Es [si el alumno lo hace mal] que el profesor despedirá  
 it.is if the student it does bad that the teacher fires  
 al profesor adjunto.  
 the professor adjunct  
 'It is if the student does badly that the professor will fire the adjunct prof.'
- b. ?\*Es [si pro es tan infeliz] que ella debería irse.  
 it.is if pro is so unhappy that she should leave  
 intended: 'It is if she's so unhappy that she should leave.'
- c. \*Es [si tu corriges 50 exámenes] que yo ~~corrijo~~ 100.  
 it.is if you correct 50 exams that I correct 100

- ③ Hypothetical conditionals can be modified by *even/only*, factual and relevance conditionals cannot, (9).

- (9) a. Solo/ incluso si le molestas, Juan te dará 5 dólares.  
 only even if him bothers Juan to.you will.give 5 dollars  
 'Juan will give you 5\$ only/even if you bother him.'
- b. #Solo/ incluso si es estúpido, no deberías molestar-te en hacer-lo.  
 only even if is stupid not should.2SG bother-you in doing-it  
 intended: 'Only/ even if it's stupid, you shouldn't bother doing it.' (non-hypothetical reading)
- c. #Solo si Juan compró un coche, María ~~compró~~ una casa.  
 only if Juan bought a car María bought a house

### 2.2 Si-adjuncts are adjoined high

- In contrast to hypothetical conditionals, the *si*-clauses that allow gapping seem to be merged high in the left periphery, resulting in a structure that is similar to (asymmetrical) coordinations, (10).



- Much like conjuncts, *si*-clauses are located external to the proposition that is targeted by ellipsis (both syntactically and semantically).

- The data is not completely clear, but the tests lean towards this conclusion:

① Condition C effects. Real conditionals do not show Condition C effects, (11), but factual conditionals do, (12), indicating that they command the subject/ don't reconstruct into a lower base position.

(11) Si *pro*<sub>i</sub> se vende, el castillo<sub>i</sub> pasará a llamarse castillo Coca-Cola.  
if *pro* SE sell the castle will.be called castle Coca-Cola  
'If it sells, then the castle will be called Castle Coca-Cola.'

(12) \*?Si *pro*<sub>i</sub> es tan bonito, ¿por qué el castillo<sub>i</sub> no es patrimonio de la humanidad?  
if *pro* is so pretty why the castle not is heritage of the humankind  
intended: 'If it's so pretty, why is the castle not world heritage?'

② variable binding: there is no reconstruction for variable binding in either type of conditional.

(13) \*Si *su*<sub>i</sub> hijo llega tarde del colegio, cada<sub>i</sub> madre se enfada.  
if her son arrives late from school each mother REFL get.upset  
int. 'For each son x that is late, x's mother is upset.'

(14) \*Si *su*<sub>i</sub> profesor adjunto corrige 50 exámenes, cada<sub>i</sub> profesor corrige 100.  
if her professor adjunct corrects 50 exams, each professor corrects 100  
int. 'For each adjunct professor x that corrects 50 exams, x's professor corrects 100.'

hablado con mi hermana.

spoken to my sister

'María has spoken to my brother and Juan has to my sister.'

b. Si tú has corregido 30 exámenes, yo (\*he) ~~corregido~~ 50.  
if you have corrected 30 exams I have corrected 50  
'If you have corrected 30 exams, I have corrected 50.'

② The ellipsis site contains the Voice projection: gapping doesn't allow voice mismatches, (16) and (17).

(16) a. \*Las ideas de Hundertwasser son respetadas por los eruditos y profanos ~~respetan~~ su obra actual.  
the ideas of Hundertwasser AUX.PASS respected by experts and laypeople respect.ACT his work actual

b. \*Los laicos respetan el trabajo real de Hundertwasser y sus ideas son respetadas por los estudiosos.  
the laypeople respectACT the work actual of Hundertwasser and his ideas AUX.PASS respected by the experts  
intended: 'Hundertwasser's ideas are respected by scholars and laypeople respect his actual work.'

(17) a. \*Si tu corriges 30 exámenes, 50 ~~son~~ ~~corregidos~~ por mí.  
if you correct 30 exams, 50 AUX.PASS corrected by me

b. \*Si 30 exámenes fueron corregidos por tí, yo ~~corregí~~ 50.  
if 30 exam AUX.PASS corrected by you I correct 50

⇒ The relevant deletion is not VP-ellipsis, but deletion of something bigger, TP.<sup>3</sup>

## 2.3 Gapping diagnostics

- We argue that the sentences in (1) and (3) arise from TP-ellipsis, similar to what has been shown for modal complement ellipsis in Fernández-Sánchez (2023).

① Spanish has obligatory V-to-T-movement (e.g., Torrego 1984), making the minimal verbal ellipsis site T'. Additionally, the ellipsis site obligatorily contains auxiliaries in T<sup>0</sup>. Auxiliaries cannot surface when the lexical verb is deleted, (15).

(15) a. María había hablado con mi hermano y Juan (\*había)  
María has spoken to my brother and Juan has

<sup>3</sup>If both gapping and modal complement ellipsis are derived by TP-ellipsis, we expect modal complement ellipsis to be possible in the same adjunct environments as gapping. This seems to be true, (i).

(i) Si tú debes corregir 50 exámenes, yo debo ~~corregir~~ 100.  
if you should correct 50 exams I should correct 100  
'If you have to correct 50 exams, I have to correct 100.'

### 3 Analysis

#### 3.1 QUD-based identity

- Ellipsis sites need a sufficiently identical antecedent from which their meaning can be recovered.  
 ↪ We follow approaches that posit that clausal ellipsis is subject to Question-under-Discussion (QUD) based identity (e.g., Ginzburg & Sag 2000; Reich 2007; AnderBois 2011; Weir 2014; Barros & Kotek 2019; Overfelt 2020).
- QUDs = salient questions in the discourse; they shape the flow of conversation as interlocutors take turn in addressing the QUD, Roberts (2012)
- For example, in sluicing, indefinites raise a certain QUD, (18) (e.g., AnderBois 2014). If  $[[\text{QUD}]] = [\text{Sluiced Q}]$ , ellipsis is licensed (Roberts 2012, see also Barros & Kotek 2018).

- (18)
- Sally is dating someone but I don't know  $[\text{CP who } \cancel{\text{Sally is dating } \#}]$
  - QUD = Who is Sally dating?
  - $[[\text{QUD}]] = \{\text{Sally is dating Martha, Sally is dating Carl}, \dots\}$
  - $[[\text{CP}]] = \{\text{Sally is dating Martha, Sally is dating Carl}, \dots\}$
  - $[[\text{QUD}]] = [[\text{CP}]]$

- We propose that the contrastive topic marking in the *si*-clause (or a first conjunct) raises a multiple *wh*-QUD, which licenses ellipsis in the main clause (or second conjunct), (19).<sup>4</sup>

- (19) *QUD-identity* (based on Rooth 1992; Reich 2007; Weir 2014)  
 A clause  $\alpha$  can be elided iff the focus semantic value of  $\alpha$  is identical<sup>5</sup>

<sup>4</sup>We take this from an independent proposal for these types of conditionals by Castroviejo & Mayol (2019). They argue that these (non-elliptical versions of the) conditionals shift the current QUD to a multiple-*wh*-question, (i).

- (i)
- A: Estoy cansado.  
     am tired  
     'I'm tired.'
  - B: Si tú estás cansado, yo estoy muerto.  
     if you are tired I am dead  
     lit. 'If you're tired, I'm exhausted.'  
     'You may well be tired, but I am exhausted.' (Castroviejo & Mayol 2019:605)

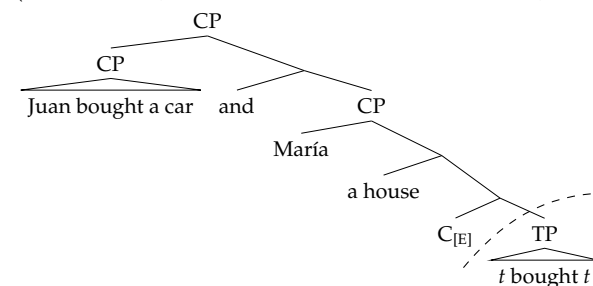
A in (i) addresses the QUD 'Is A feeling tired?'. Castroviejo & Mayol's pragmatic reasoning account: repeating a proposition that is already in the common ground in the if-clause + Contrastive Topic marking = raising a new QUD: 'Who is feeling how (regarding tiredness)?'

<sup>5</sup>This is a simplification that will suffice for our purposes. For modifications see Weir (2014, 2017).

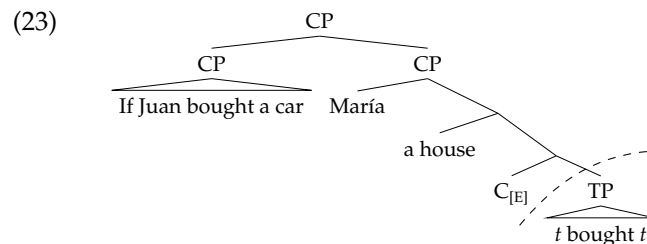
to the denotation of the QUD raised by the antecedent phrase.

- (20) *Gapping in coordinations*
- Juan<sup>F</sup> compró un coche<sup>F</sup> y  $[\alpha \text{ María}^F \text{ compró una casa}^F]$ .  
 Juan bought a car and María bought a house  
 'Juan bought a car and María a house.'
  - $[[\text{QUD}]] = [\text{Who bought what?}] = \{\text{John bought a car, John bought a house, Mary bought a car, Mary bought a house}, \dots\}$
  - $[[\alpha]]^F = [\text{Mary}^F \text{ bought a house}^F] = \{\text{John bought a car, John bought a house, Mary bought a car}, \dots\}$
  - $[[\alpha]]^F = [[\text{QUD}]]$

- (21) Syntax: Move-and-Delete analysis  
 (Boone 2014, see also Sailor & Thoms 2014, Schwarzer to app.a, b)

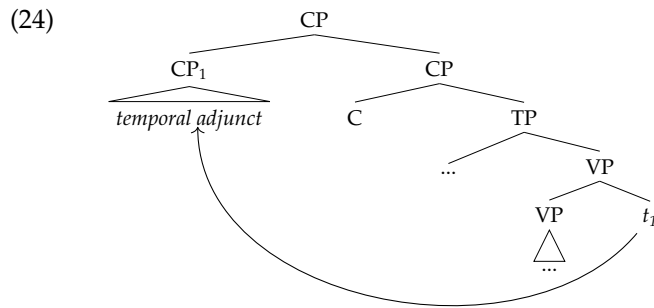


- (22) *Gapping with a si-antecedent*
- Si tú<sup>F</sup> corriges 50 exámenes<sup>F</sup>,  $[\alpha \text{ yo}^F \text{ corrijo } 100^F]$ .  
 if you correct 50 exams I correct 100
  - $[[\text{QUD}]] = [\text{Who corrected how much?}] = \{\text{I correct 100, you correct 50, John corrects 20}, \dots\}$
  - $[[\alpha]]^F = \{\text{you correct 50, John corrects 20}, \dots\}$
  - $[[\alpha]]^F = [[\text{QUD}]]$



### 3.2 Adjunct clause selectivity

- Why can certain conditionals, but not temporal or *although*-adjuncts license gapping?
- Temporal adjuncts are adjoined lower than factual conditionals, somewhere between VP and TP, (24).
- They are interpreted internal to the would-be ellipsis site. This means that the main clause contains a variable that is missing in the adjunct, leading to a mismatch in (25).



(25) *Temporal adjunct clauses*

- \*[Después de que Juan compró un coche]<sub>k</sub>, [<sub>α</sub> María compró una casa t<sub>k</sub>].  
after that Juan bought a car María bought a house
  - [[QUD] = [[Who bought what?]] = {Sue bought a calendar, Juan bought a car,...}
  - [[<sub>α</sub>]<sup>F</sup> = {at time x Sue bought a calendar, at time y John bought a car,...}
  - ![[<sub>α</sub>]<sup>F</sup> ≠ [[QUD]]
- What about high, left-peripheral adjunct clauses like *although*?
    - They are interpreted outside of the elided proposition.
    - They can have contrastive topics inside them.
- ↪ What differentiates concessive adjuncts from the *si*-conditionals in (3), is that they can't raise a proper QUD.
- Contrastive topics inside them can't give rise to a multiple-*wh*-QUD, because the content of *although*-adjuncts is not at-issue to the QUD.

① explicit answer to the QUD (Tonhauser 2012): if an element can address the QUD, it is at-issue.

(26) Who bought what?

- Si Juan compró un coche, María compró una casa.  
if Juan bought a car María bought a house  
lit. 'If Juan bought a car, María bought a house.'  
idiom. 'Juan might have bought a car, but María has bought a whole house.'
- #Aunque Juan compró un coche, María compró una casa.  
although Juan bought a car María bought a house  
int. 'Although Juan bought a car, María bought a house.'

② adversative continuation (Tonhauser 2012). In an answer to a polar question, at-issue content cannot be negated in a continuation, but non-at-issue content can.

(27) Did this man, your mother's friend, steal money from you?

- Yes, but he is not my mother's friend.
- #Yes, but he didn't steal money from me.

(28) a. Si Juan ha comprado un coche, ¿ha comprado María una casa?  
if Juan has bought a car has bought María a house  
lit. 'If Juan has bought a car, has María bought a house?'

- #Sí, pero Juan no ha comprado un coche.  
yes but Juan not has bought a car  
int. 'Yes, but Juan hasn't bought a car.'

(29) a. Aunque Juan haya comprado un coche, ¿ha comprado María una casa?  
although Juan has.SUBJV bought a car has bought María a house  
lit. 'Although Juan has bought a car, has María bought a house?'

- Sí, pero Juan no haya comprado un coche.  
yes but Juan not has.SUBJV bought a car  
int. 'Yes, but Juan hasn't bought a car.'

⇒ Factual conditional clauses, but not temporal or concessive adjuncts form a natural class with initial conjuncts in Spanish in their ability to raise a QUD that can license gapping.

## 4 Conclusion and lessons for coordinate structures

### Summary

- We describe a new type of environment in which gapping is attested: with non-hypothetical conditional antecedents in Spanish.
- We propose an analysis that can unify all the contexts in which gapping can occur: ellipsis is licensed when the antecedent clause can raise a QUD such that  $[[\alpha]^F = [\text{QUD}]$

### Cross-linguistic implications

- If what we call gapping can be derived via different types of ellipsis (e.g., VP or TP), then it should show different behaviors.
- Gapping in English doesn't show the same pattern because (i) it is deletion of a smaller phrase and is subject to a non-QUD identity condition (see e.g., Sag 1976; Jayaseelan 1990; Coppock 2001; Toosarvandani 2013) or (ii) it's not ellipsis at all, but ATB-movement (Johnson 1996/2004, 2009).

### Lessons for coordinate structures

- The counterexamples to restrictions on gapping seem to involve clausal ellipsis (Persian: TP-ellipsis, Farudi 2013).
- ⇒ Hypothesis: if an ellipsis is restricted to coordinations, it involves deletion of smaller-than-TP constituents
- If this is a robust generalization, the explanation could be the different identity conditions: clausal ellipsis leans towards QUD-identity, smaller ellipsis leans towards syntactic-semantic identity
  - Does this imply that all clausal ellipsis is QUD-governed? ⇒ No.
  - Modal complement ellipsis in Spanish is also TP-ellipsis (Fernández-Sánchez, 2023), but is possible when it is not QUD-licensed, (30) (based on Weir 2014).

- (30) A: *Who did John say has the key to the liquor cabinet?*  
 B: ✓ Bueno, Mary debe tener la llave de la licorería,  
 well Mary should have the key of the liquor.cabinet  
 pero no se que dijo John.  
 but not know.1SG qhat said John  
 'Well, Mary should have the key, but I don't know who John  
 said has the key.'  
 a. QUD = Who did John say has the key?  
 b. QUD ≠ Who has the key?

⇒ Focus alternatives play a role.

⇒ More fine-tuning to do.

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