

No ellipsis-contained antecedents: adjunct-licensed ellipsis in Spanish

Abstract: While implicitly assumed, the restriction that the antecedent of ellipsis cannot be base-merged within the ellipsis site has not to our knowledge been explicitly stated or analysed. In this article we discuss a pattern of ellipsis in Spanish, resembling gapping but we argue distinct from it, where ellipsis in the main clause can find its antecedent in some but not all adverbial clauses. The adverbial clauses that cannot provide the antecedent for ellipsis are, we argue, those that would have to be interpreted within the ellipsis site at LF. We argue that this pattern and its restrictions supports LF-identity theories of clausal ellipsis, and also provides evidence that remnants of clausal ellipsis move at LF.

Keywords: gapping; ellipsis; LF-identity; adverbial clauses; adjuncts; Spanish

1 Introduction

The goal of this article is to provide an analysis for the Spanish ellipsis construction that is illustrated in (1).

- (1) a. *Cuando Juan escribe un artículo, María ~~escribe~~ una monografía.*
when Juan writes an article María writes a monograph
'When Juan writes an article, María writes a monograph.'
b. *Si tú has corregido 50 exámenes, yo ~~he corregido~~ 50 tesis de máster.*
if you have graded 50 exams I have graded 50 master theses
'Whereas you have graded 50 exams, I have graded 50 master theses.'
c. *Mientras tú creas problemas, yo ~~creo~~ soluciones.*
while you create problems I create solutions
'Whereas you create problems, I create solutions.'

Although similar to gapping on the surface, (1) does not display the properties generally associated with gapping. We will the type of ellipsis in (1) Apparent Gapping across Adverbial Clauses (AGAC). The main difference is that in (1), the ellipsis site and the antecedent are separated by a subordinate clause boundary, while typical gapping is confined to coordinate structures, as in the English examples in (2) (see e.g., Jackendoff 1971, Johnson 2009; Toosarvandani 2013, among many others) and comparative clauses (which may be themselves instances of coordinates; cf. footnote 2).

- (2) a. *Mary bought a house and John ~~bought~~ a car.*
b. *Mary has more books than John ~~has~~ DVDs.*

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- c. **Mary bought a house [after John ~~bought~~ a car].*
- d. **[After John bought a car], Mary ~~bought~~ a house.*

The close relation between gapping and coordinate structures illustrated in (2) has been attributed to a *No Embedding* constraint (Hankamer 1979): a gapped clause and its antecedent must be at the same level of syntactic embedding with respect to each other (i.e. must be coordinated). It has been argued that gapping in Spanish can violate this constraint, allowing gapping across complement clauses (Brucart 1999, Bîlbîie and de la Fuente 2019; Bonke and Repp 2022). One of the contributions of this article is to characterize AGAC and compare it to gapping, see Section 2.1.

A second contribution is to determine the distribution of AGAC ellipsis. Not all types of adverbial clauses may be antecedents for AGAC ellipsis. Temporal clauses with *antes de que* ‘before’ or *después de que* ‘after’ appear to pattern with English, and behave as predicted by the *No Embedding* constraint, (3).

- (3) a. **Después de que Juan compró un coche, María ~~compró~~ una casa.*
 after of that Juan bought a car, María bought a house
 Intended: ‘After Juan bought a car, María bought a house.’
- b. **Antes de que tú corrigieras 50 exámenes, yo ~~corregí~~ 50 tesis.*
 before of that you graded.SBJ 50 exams I graded 50 theses
 Intended: ‘Before you graded 50 exams, I graded 50 theses.’

However, all adjunct clauses can provide the antecedent if the ellipsis site is embedded in a complement clause, as in (4), as we will see in Section 2.1 below:

- (4) *Mientras Juan corregía 50 exámenes, María afirmó [que ella ~~corregía~~ 100].*
 while Juan graded.IMPF 50 exams María claimed that she graded.IMPF
 100.
 ‘While Juan was grading 50 exams, Maria claimed that she was grading 100.’

Beyond this empirical contribution, we propose that adjuncts can provide an antecedent for ellipsis provided they are in the right structural configuration with the ellipsis site at LF. The adjunct that provides the antecedent for ellipsis must not itself be interpreted within the domain that is elided. Adjuncts of the type in (1) – which are a subset of the adjuncts that Haegeman (2012) identifies as peripheral adjuncts – are merged outside of the elided domain, while temporal adjuncts (3) must be central adjuncts that are merged within it, and so cannot themselves provide the antecedents for ellipsis.

The article proceeds as follows: In Section 2 we describe the empirical pattern of AGAC, investigating the size of the ellipsis site and the height of adjunction. Section 3 lays out our analysis: LF-identity systematically rules out cases of ellipsis-contained antecedents. In Section 4 we discuss implications for crosslinguistic variation and conclude.

2 Spanish ellipsis with adverbial clause antecedents

2.1 Spanish AGAC as TP-ellipsis

We characterize Spanish AGAC as TP-ellipsis, similar to what Fernández-Sánchez (2023) has proposed for modal complement ellipsis. One piece of evidence for this comes from verb movement. Spanish has obligatory V-to-T movement (e.g. Zagona 2002), making the minimal

ellipsis site for verb-deleting processes TP. Additionally, auxiliaries, hosted in T, can never surface overtly when gapping (5a) or AGAC (5b) occurs, i.e., when the lexical verb is deleted and two remnants survive. Auxiliaries have to be part of the deleted phrase (Reglero 2006), see (5).

- (5) a. *María había hablado con mi hermano y Juan (*había) ~~hablado~~ con mi*
 María has spoken with my brother and Juan has spoken with my
hermana.
 sister
 'María has spoken with my brother and Juan with my sister.'
 b. *Si tú vas a corregir 30 exámenes, yo (*voy) ~~a corregir~~ 50.*
 if you are.going to grade 30 exams I am.going to grade 50
 'Whereas you are going to grade 30 exams, I am going to grade 50.'

Additional evidence that AGAC deletes at least up to TP comes from the impossibility of voice mismatches between antecedent and ellipsis site. Neither gapping (6) nor AGAC (7) allow voice mismatches, as expected if the ellipsis site contains Voice.

- (6) a. **Las ideas de Hundertwasser son respetadas por eruditos y profanos*
 the ideas of Hunderwasser AUX.PASS respected by experts and laypeople
~~respetan~~ *su obra actual.*
 respect.ACT his work actual
 Intended: 'Hunderwasser's ideas are respected by experts and laypeople respect his actual work.'
 b. **Los laicos respetan el trabajo real de Hundertwasser y sus ideas*
 the laypeople respect.ACT the work real of Hundertwasser and his ideas
~~son~~ *respetadas por los estudiosos.*
 AUX.PASS respected by the experts
 Intended: 'Laypeople respect Hunderwasser's actual work and his ideas are respected by the experts.' [based on Merchant 2008:170]
 (7) a. **Si tú corregiste 30 exámenes, 50 ~~fueron~~ ~~corregidos~~ por mí.*
 if you graded.PFV 30 exams 50 AUX.PASS.PST graded by me
 Intended: 'Whereas you corrected 30 exams, 50 were corrected by me.'
 b. **Si 30 exámenes fueron corregidos por ti, yo ~~corregí~~ 50.*
 if 30 exams AUX.PASS.PST graded by you I graded 50
 Intended: 'Whereas 30 exams were graded by you, I graded 50.'

Finally, Spanish AGAC allows non-subject remnants, (8). This confirms that the ellipsis site must be large enough to contain the derived subject position in Spec,TP, therefore supporting the conclusion that AGAC elides a constituent at least as big as TP.

- (8) *Si a su hija le compraron una nevera, a su hijo ~~le compraron~~ una*
 if to their daughter her bought.3PL a fridge, to their son him bought a
casa.
 house
 'Whereas they bought their daughter (only) a fridge, they bought their son a house'

As we have described the pattern, Spanish AGAC seems to closely resemble gapping in terms of what is elided. However, Spanish AGAC empirically differs from Spanish gapping with respect to the licensing of determiner sharing, i.e., the interpretation of a single overt

determiner on two NPs (e.g., Johnson 2000, Arregi and Centeno 2005). In Spanish, determiner sharing is available across gapped coordinations (9), but not in the cases we have identified as AGAC (10).

- (9) *Muchos estudiantes obtuvieron becas y ~~muchos~~ profesores ~~obtuvieron~~ proyectos.*
 many students received grants and many professors received projects
 ‘Many students received grants and many professors received projects.’
- (10) **Si muchos estudiantes obtuvieron becas, ~~muchos~~ profesores ~~obtuvieron~~ proyectos.*
 if many students received grants many professors received projects
 Intended: ‘If many students received grants, many professors received projects.’

We preliminarily conclude from this that there are actually two possible derivations in Spanish for constructions which on the surface look like gapping: a coordinate structure patterning mostly with English gapping (9) and the AGAC structure (10), which elides a bigger constituent than English gapping.¹

2.2 Premise conditionals and AGAC

As mentioned above, not all types of adverbial clauses can be antecedents for AGAC. Conditional clauses can provide an antecedent, as in (1b) – but only on a particular reading of the conditional clause. Conditionals that license AGAC are not true hypothetical conditionals, but so-called premise or factual conditionals (Iatridou 1991, Schwenter 1999, Castroviejo and Mayol 2024), illustrated in (11). Premise conditionals are used to structure the discourse by making manifest a proposition that is privileged as the context to properly assess the following clause (Haegeman 2003: 317).

- (11) *If Bill is so unhappy here, he should leave.*
 (adapted from Iatridou 1991)

For instance, in (11) the speaker is not setting a condition for Bill to leave, which the truth value of the proposition depends on. The speaker is highlighting a premise, often one which echoes a previous assertion in context, which is presented as background to assess the speaker’s claim, which is that Bill should leave.

The premise conditional structure which can provide the antecedent for AGAC has recently been thoroughly analysed by Castroviejo and Mayol (2019, 2021, 2024), who term them *echoic contrastive conditionals*. They are echoic, as the protasis is naturally interpreted as directly reproducing a claim made earlier by the interlocutor (rather than setting up a true conditional relationship between the truth of the protasis and apodosis). In fact, in (1b) above, repeated here as (12), the natural interpretation is that the interlocutor has just boasted or complained that he graded 50 exams.

- (12) *Si tú has corregido 50 exámenes, yo ~~he~~ ~~corregido~~ 50 tesis de máster.*
 if you have graded 50 exams I have graded 50 master theses
 ‘Whereas you have graded 50 exams, I have graded 50 master theses.’

¹ While it may be the case that the two structures can be unified in a way that these contrasts follow from independent principles, we believe that before that unification is attempted one must have a detailed account of AGAC and its cross-linguistic availability, which currently we do not have. For the purposes of this article, then, we will preliminarily treat AGAC as a distinct type of ellipsis.

True hypothetical conditionals can be distinguished from such echoic or factual conditionals in various ways. Premise conditionals reject focus particles like *only* or *even* as modifiers of the protasis (Bhatt and Pancheva 2006), perhaps because the protasis acts as a theme that sets a background to evaluate the consequent of the conditional. (13) is infelicitous on the ‘premise’ reading, presupposing that Bill is unhappy.

(13) #*Only if Bill is so unhappy should he leave.*

Accordingly, adding focus markers to the conditionals in Spanish is incompatible with AGAC, (14), indicating that the antecedent-providing adverbial is not a hypothetical conditional.

(14) (**Solo*) *si tú has corregido 50 exámenes, yo ~~he~~ ~~corregido~~ 50 tesis.*
 only if you have graded 50 exams I have graded 50 theses.
 Intended: ‘Only if you (really) have graded 50 exams, I have graded 50 theses.’

For the same reason, the protasis of premise conditionals cannot be focused by clefting (15a), and again focus by clefting is incompatible with AGAC in Spanish (15b).

(15) a. **It is if Bill is so unhappy that he should leave.*
 b. **Es [si tú has corregido 50 exámenes] que yo ~~he~~ ~~corregido~~ 50 tesis.*
 it.is if you have graded 50 exams that I have graded 50 theses
 Intended: ‘It is only if you have graded 50 exams that I have graded 50 theses.’

Sequence of tense and mood also illuminate the contrast. Spanish has a contrast between indicative and subjunctive in finite verbs (Quer 1998). Indicative mood is compulsorily used in premise conditionals, while subjunctive is used in the protasis of true hypothetical conditionals, enforcing a verb in conditional in the consequent (see RAE & ASALE 2009: §47.8 for a detailed description). Again, AGAC is impossible if the protasis contains a verb in subjunctive: (16) sharply contrasts with (12) above.

(16) *Si tú corrigie-ra-s 50 exámenes, yo *(corregi-ría) 50 tesis.*
 if you graded-SBJV-2SG 50 exams I grade-COND.1SG 50 theses
 Intended: ‘If you graded 50 exams, I would grade 50 theses.’

While the subordinator *si* allows both hypothetical and non-hypothetical interpretations, other conditional expressions are specialised for hypothetical meanings, with verbs in the subjunctive and always subject to sequence of tense: this is the case of *con tal de que* ‘provided that’ and *en caso de que* ‘in case’, as well as *siempre y cuando* ‘just in case’. None of these subordinators allows a premise conditional interpretation, and none of them licenses AGAC in the apodosis, (17).

(17) a. #*{Con tal de que/ En caso de que} Juan se sienta tan mal, debe irse.*
 with such of that in case of that Juan se feel.SBJV.3SG so bad should leave
 Intended: ‘{Provided that / In case} Juan feels so bad, he should leave.’
 b. **{Con tal de que/ En caso de que} tú corrigieras 50 exámenes, yo ~~corregiría~~ 100.*
 with such of that in case of that you grade.SBJV 50 exams I ~~corregiría~~ 100.

2.3 Other adverbial clauses and AGAC

Some non-conditional clauses can provide the antecedent for AGAC, precisely to the extent that they can have such high ‘factual’ or ‘discourse-structuring’ readings. The subordinator *cuando* ‘when’ allows a temporal reading or a ‘factual’, ‘discourse-structuring’ reading. The temporal reading can be controlled for by adding *entonces* ‘then’, and is subject to sequence of tense restrictions. (18) with *entonces* forces the temporal reading where María paints only during the same time period as Juan draws. (18) without *entonces* is ambiguous between the two readings.

- (18) *Cuando Juan hace dibujos, (entonces) María hace cuadros.*
 when Juan makes drawings then María makes paintings
 ‘When Juan makes drawings, María makes paintings.’
 ‘Whereas Juan makes drawings, María makes paintings.’ (only without *entonces*)

AGAC is only possible in the non-temporal condition without *entonces*, (19).

- (19) *Cuando Juan hace dibujos, (*entonces) María ~~hace~~ cuadros.*
 when Juan makes drawings then María makes paintings
 ‘Whereas Juan makes drawings, María makes paintings.’

A similar situation arises with *mientras* ‘while’. Normatively in modern Spanish, *mientras* ‘while’ only has a temporal simultaneity reading (20a) which enforces imperfective tenses, and *mientras que* ‘whereas’ should be used for an adversative contrast reading (20b), which allows perfective tenses. However, many speakers use *mientras* for both meanings. Only the non-temporal reading of *mientras* allows AGAC, as (1c), repeated here as (21), illustrates.

- (20) a. *Mientras yo vivía en Madrid, tú y yo casi no hablábamos.*
 while I live.IMPF in Madrid you and me almost not talk.IMPF
 ‘While I was living in Madrid, you and me had almost no contact.’
 b. *Mientras (que) yo viví en Madrid, tú viviste en Barcelona.*
 while that I live.PFV in Madrid you live.PFV in Barcelona
 ‘Whereas I lived in Madrid, you lived in Barcelona.’
 (21) *Mientras (que) tú creas problemas, yo ~~creo~~ soluciones.*
 while (that)you create problems I create solutions
 ‘Whereas you create problems, I create solutions.’

Concessive clauses also show a contrast. The Spanish literature has identified two main types of concessive clauses (see e.g. Flamenco 1999): restrictive concessives (22a), where the two clauses are temporally autonomous from each other and indicative must be used, and pure concessives (22b), where subjunctive is used and there must be a correlation, parallel to hypothetical conditionals, between the temporal forms used in each.

- (22) a. *Aunque ya es tarde, continuaremos la reunión.*
 although already is late continue.FUT.1PL the meeting
 ‘Even though it is late, we will continue the meeting’
 b. *Aunque ya fuera tarde, continuaríamos la reunión.*

although already was.SBJV late continue.cond.1pl the meeting
 ‘Even if it was already late, we would continue the meeting’

Only the first reading, which directly expresses opposition between two existing facts, licenses AGAC, (23).

- (23) a. *Aunque tu corrigiste 50 exámenes ayer, María (mañana) ~~corregirá~~ 100.*
 although you grade.PFV 50 exams yesterday María tomorrow grade.FUT 100
 ‘Even though you graded 50 exams yesterday, María will grade 100 tomorrow.’
 b. **Aunque tu corrigieras 50 exámenes, María (mañana) ~~corregiría~~ 100.*
 although you graded.SBJV 50 exams María tomorrow grade.COND 100
 Intended: ‘Even if you graded 50 exams, María would grade 100 tomorrow’

Temporal clauses with *antes de que* ‘before’, *después de que* ‘after’, *cada vez que* ‘whenever’ cannot provide the antecedent for AGAC (irrespective of whether the verb is in indicative or in subjunctive), see (24).²

- (24) a. **Antes de que tu corrigieras 50 exámenes, yo ~~corregí~~ 50 tesis.*
 before of that you graded.SBJV 50 exams I graded 50 theses
 Intended: ‘Before you graded 50 exams, I graded 50 theses.’
 b. **Cada vez que tú corrigiste 50 exámenes, yo ~~corregí~~ 50 tesis.*
 each time that you graded 50 exams I graded 50 theses
 Intended: ‘Whenever you graded 50 exams, I graded 50 theses.’

We argue that what differentiates the possible antecedents from the impossible ones is the position in the tree to which they are adjoined, with clauses that do not license AGAC being base merged in TP.

2.4 Peripheral vs. central adverbial clauses

Haegeman (2012) and Frey (2011), among many others, have divided adverbial clauses into three groups, based on their degree of interaction with the host clause: non-integrated clauses, peripheral clauses, and central clauses. We will limit discussion to the latter two groups. Central

² Brucart (1999:2813) classifies (i) (his 38c) where gapping is allowed, as a temporal clause.

- (i) *Yo llegué a mi casa [antes que Pedro ~~llegó~~ a la suya].*
 I arrived to my house before that Pedro arrived to the his
 ‘I arrived home before Pedro arrived to his place.’

(Brucart 1999:2813)

This example differs from ours in that the AGAC takes place within the adjunct clause (not the matrix), but is similar in that also here what seems like gapping on the surface appears to disobey the *No Embedding* constraint. Notice, however, that the conjunction is not *antes de que* ‘before’, but *antes que*; in fact, the sentence becomes ungrammatical with *antes de que*: **Yo llegué a mi casa [antes de que Pedro ~~llegara~~ a la suya].* In (i) we have a comparative clause: *antes* ‘before’ is the comparative of *pronto* ‘early’, and as such it can take a second term of comparison introduced with *que*. Comparative clauses do license gapping in general, and they have been argued to be coordinate structures (Moltmann 1992; Lechner 2001), not adjuncts, making (i) likely a case of proper gapping. A reviewer also wondered about cases where the ellipsis site is in the adjunct, and the antecedent is the matrix clause, as in *John plays the piano whereas his brother the violin*. As will become clear below, we predict that ellipsis is possible if the LF of the ellipsis site does not contain the antecedent-LF. It is not easy to determine the height of attachment for clause-final adjuncts, and we refrain from a full-fledged discussion here for reasons of space.

adverbial clauses (CACs) are merged low and are dependent on the host clause, for instance with respect to tense, aspect, and mood. Peripheral adverbial clauses (PACs) show a more independent behaviour, and are merged at a higher position. We demonstrate in this subsection that adverbials which can provide the antecedent for ellipsis pattern with PACs, and non-antecedent adverbials pattern with CACs.

Sequence of tense provides one diagnostic (Badan and Haegeman 2022). A configuration like (25), with perfective past in the host clause and perfective future in the adverbial, does not follow a sequence of tense. Correlatively, (25) can only be interpreted in the adversative or premise reading, i.e., the reading associated with PACs. This is the structure that can license AGAC.

- (25) {*Mientras/ si*} *tú publicarás un artículo, el año pasado yo ~~publiqué~~ una monografía.*
 while if you publish.FUT an article the year last I publish.PFV a monograph
 ‘Whereas/ if you will publish an article, last year I published a monograph.’

True temporal (26a) or hypothetical conditionals (26b), on the other hand, respect the sequence of tense, indicating that they are in a low enough position to depend on main clause tense; such structures disallow AGAC.

- (26) a. #*Mientras tú publicabas un artículo, yo ~~publicaba~~ una monografía.*
 while you publish.IMPF an article I publish.IMPF a monograph
 {Whereas/*At the same time that} you were publishing an article, I was publishing a monograph’
 b. **Si tú publicaras un artículo, yo ~~publicaría~~ una monografía.*
 if you publish.IMPF.SBJV an article I publish.COND a monograph
 Intended: ‘If you published an article, I would publish a monograph.’

For pure concessive *aunque* ‘although’ clauses, (27a) shows that a present subjunctive clause can receive a future interpretation dependent on the future tense in the main clause, suggesting that these clauses are CACs merged below the tense of the main clause³; such configurations also fail to license AGAC (cf. (23b), repeated here as (27b)).

- (27) a. *Aunque el dolor disminuya mañana, será importante que consultes con un médico.*
 although the pain reduces.PRES.SBJ tomorrow will.be important that consult.2SG with a doctor
 ‘Even if the pain will subside tomorrow, it will be important that you consult with a doctor.’
 b. **Aunque tu corrigieras 50 exámenes, María (mañana) ~~corregiría~~ 100.*
 although you graded.SBJV 50 exams María tomorrow grade.COND 100
 Intended: ‘Even if you graded 50 exams, María would grade 100 tomorrow’

In addition, AGAC-licensing adjuncts cannot be in the scope of focal operators like *only* or *even*. Recall the contrast in (14): ellipsis is only possible without the focal operator.

³ Note that *aunque* is in this respect different to English *although*, but patterns with English *even if*.

(i) Although the pain (will subside/#subsides) tomorrow, it will be important to consult a doctor.
 (ii) Even if the pain (#will subside/subsides) tomorrow, it will be important to consult a doctor.

Furthermore, temporal and adversative readings of *mientras* differ in binding possibilities. A subject in the host clause can bind a pronoun in the adverbial clause only if it is a CAC. In (28), only the temporal reading of *mientras* is available under variable binding. This indicates that the temporal adverbial is c-commanded by the subject of the main clause. The adversative reading is impossible, suggesting again that those antecedents that provide antecedents for AGAC, e.g., adversative *mientras*, are PACs, merged high in the left periphery.

- (28) *Mientras* pro_i *tiene mucho dinero*, *ninguno_i* *de los oligarcas* *está*
 while he has a.lot money none of the oligarch is
contento.
 happy
 ‘At the time when he_i has a lot of money, no oligarch $_i$ is happy.’
 *‘Whereas he_i has a lot of money, no oligarch $_i$ is happy.’

This is also true of restrictive concessives: variable binding is impossible with an adverbial headed by *aunque* ‘although’ in the restrictive indicative reading with indicative mood (29a), while it is available in the pure concessive hypothetical use with subjunctive mood in the adjunct (29b).

- (29) a. **Aunque* pro_i *tiene mucho dinero*, *ninguno_i* *de los oligarcas* *está*
 while pro has a.lot money none of the oligarchs is
contento.
 happy
 b. *Aunque* pro_i *tenga* *mucho dinero*, *ninguno_i* *de los oligarcas* *está*
 while pro has.SBJV a.lot money none of the oligarchs is
contento.
 happy
 ‘Even if he_i has a lot of money, no oligarch $_i$ is happy.’

The ellipsis-licensing adjuncts thus pattern with Haegeman and Badan’s (2022) characterization of peripheral adjuncts, while the adjuncts that cannot license AGAC show properties of CACs.⁴

⁴ Reasons of space prevent us from reviewing all types of adverbials. An anonymous reviewer asks us specifically about causal clauses and their interaction with negation. As the reviewer notes, we predict that ellipsis correlates with high attachment of the causal, above negation. The prediction is borne out. In Spanish, when the causal is in the scope of negation, subjunctive must be used:

- (i) a. *María no vino* *porque estaba enfadada*. because > Neg
 María not came because was.ind angry
 ‘María didn’t come, as she was angry’
 b. *María no vino* *porque estuviera enfadada*. Neg > because
 María not came because was.sbj angry
 ‘The reason María came was not that she was angry (but something else)’

Only when the causal is in indicative – outside the scope of Neg – is AGAC possible.

- (ii) *Porque* *María* {*corrigió* / **corrigiera*} *20 exámenes*, *Marcos no corrigió* 50.
 because María graded.ind / graded.sbj 20 exams, Marcos not graded 50
 ‘As María graded 20 exams, Marcos didn’t grade 50’

In fact, AGAC is more natural with the causal *ya que* ‘given that’, which can never be under the scope of negation.

2.5 All adverbial clauses license AGAC if outside the ellipsis clause

To complete the empirical picture, the distinction between central and peripheral adverbial clauses dissolves when they are adjoined within a clause which subordinates the AGAC clause, as can be seen in (30).

- (30) *Mientras Juan corregía 50 exámenes, María afirmó [que ella ~~corregía~~ 100].*
while Juan graded.IMPF 50 exams María claimed that she graded.IMPF 100.
'While [temporal or adversative] Juan was grading 50 exams, Maria claimed that she was grading 100.'

In contrast with the examples presented in Section 2.4, the while-clause in (30) provides the antecedent even though it is a central temporal clause with purely temporal reading. Similarly, if the propositional content of the adverbial clause is established in a previous clause, as in (31), AGAC also becomes possible with central adverbial clauses.

- (31) *Juan compró un coche. Después de que compró un coche, María ~~compró~~ una casa.*
Juan bought a car after of that bought a car María bought a house
'Juan bought a car. After he bought a car, Maria bought a house.'

The generalisation is that the adverbial clause licenses AGAC provided that it is outside the sentence that undergoes ellipsis. If this condition is met, temporal clauses, hypothetical conditionals, concessives and all other central clauses – which we do not illustrate for reasons of space – can provide the antecedent for AGAC.

3. Analysis

3.1 No antecedents inside ellipsis sites

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- (iii) a. *María no vino, ya que estaba enfadada.* because > Neg
María not came given that was.ind angry
'María didn't come, as she was angry'.
b. **María no vino ya que estuviera enfadada.* *Neg > because
María not came given that was.sbj angry
Intended: 'The reason María came was not that she was angry (but something else)'
c. *Ya que María corrigió 20 exámenes, Marcos no ~~corrigió~~ 50.*
given that María graded.ind 20 exams, Marcos not graded 50
'As María graded 20 exams, Marcos didn't grade 50'

Note that the first remnant of AGAC appears before the negator *no* in these examples. We do not fully explore the interaction of AGAC and polarity here, but this word order is consistent with the movement analysis we give in section 3.1 if we adopt Vicente 2006's analysis of negative fragment answers in Spanish. Vicente proposes there is a position for polarity heads in the clausal left periphery in between the landing site of topics TopP and the landing site of foci FocP – that is, plausibly in between the first and second remnants of AGAC.

We adopt the ‘move-and-elide’ or ‘evacuating movement’ approach to clausal ellipsis (e.g., Merchant 2004, Sailor and Thoms 2014, Weir 2014, Broekhuis 2018, Schwarzer 2024). The two remnants of AGAC move to a left-peripheral position in the clause, with the rest of the clause being elided. (For simplicity we show the left periphery as a recursive CP here; of course it may have a more fine-grained cartographic structure à la Rizzi 1997.)⁵

- (32) a. *Cuando Juan escribe un artículo, María ~~escribe~~ una monografía.*
 when Juan writes an article María writes a monograph
 ‘When Juan writes an article, María writes a monograph.’
 b. [CP cuando Juan escribe un artículo [CP María₁ [CP una monografía₂ [~~TP t₁-escribe t₂]]]]]~~

The question is under what circumstances ellipsis can take place, i.e. what can provide the antecedent and how. In the previous section, we have seen that adjunct clauses that can be antecedents for AGAC are merged outside of the elided TP, while adjuncts that cannot be antecedents for AGAC are contained within the elided TP. The generalization we therefore pursue is that adjuncts that cannot be antecedents for AGAC are those that are interpreted within the very material that is elided, while adjuncts that can be antecedents are interpreted external to the ellipsis site.

The generalization that an ellipsis site cannot contain its own antecedent seems intuitively logical and simply stated. However, we believe it is not a trivial conclusion: in particular, if it is correct, it provides evidence (a) that ellipsis identity (at least in AGAC) is calculated specifically over LFs, and (b) that ellipsis remnants move at LF.

To see this, observe that the surface (pronounced) structure of an example like (33) presumably contains a trace of the movement of the *después*-clause to the left periphery.

- (33) [*Después de que Juan compró un coche*]₁, *María t₁ compró una casa.*
 after of that Juan bought a car María bought a house
 ‘After Juan bought a car, María bought a house.’

In general, clausal ellipsis sites can contain traces which their antecedents do not; for example, ‘sprouting’ cases such as (34).

- (34) *I know he ate it but I don’t know when ~~he ate it~~ t.*

So, in (33), simply copying the verb from the surface structure which is available in the adverbial clause – and ‘sprouting’ the trace of that very adverbial clause itself – should (one might imagine) suffice to license ellipsis in the main clause; but ellipsis is not possible. (The putative antecedent TP is underlined in (35b)).

- (35) a. **Después de que Juan compró un coche, María ~~compró~~ una casa.*
 after of that Juan bought a car María bought a house
 Intended: ‘After John bought a car, María bought a house’.
 b. *[CP [CP Después de que [TP Juan compró un coche]]₁ [María₂ [una casa₃ [TP ~~t₂-t₁ compró t₃]]]]]~~

⁵ The discussion to come will force the conclusion that the ellipsis remnants are interpreted as having moved out of their clause at LF (contra Weir 2014; see Shen 2017 for arguments that ellipsis remnants do move at LF). We adopt an evacuating-movement analysis here (i.e. ellipsis remnants move at both PF and LF) as the most obvious and concrete implementation. However, we believe that what we say here would also be compatible with analyses where remnants remain *in situ* at PF, e.g. Griffiths (2019), Griffiths and Struckmeier (2021) (see also Ott & Struckmeier (2018)), to the extent that such analyses would allow or require remnants to move at LF.

The failure of ellipsis therefore seems to be semantic: the *meaning* of the elided TP has to contain the meaning of the central adverbial clause (because CACs are interpreted within TPs, i.e. they fully reconstruct in a structure like (33)), but the meaning of the TP inside the CAC obviously then cannot be identical to the meaning of the elided TP (because one contains the other as a part).

Even this, however, is not wholly trivial to capture. We believe, for example, that one prominent semantic identity condition on ellipsis, Merchant (2001)'s e-GIVENness, would incorrectly permit ellipsis in cases like (33).⁶ The reason is that Merchant's e-GIVENness calculates mutual entailment 'up to' the existential closure of traces, variables, and focused elements in antecedent and ellipsis site. This can be seen in a contrast sluicing example such as (36).

- (36) a. *Mary saw [JOHN]_F, but I don't know who ELSE ~~Mary saw t~~.*
 b. Existential closure of antecedent *Mary saw [JOHN]_F*:
 $\exists x$. Mary saw x
 c. Existential closure of ellipsis site *Mary saw t*:
 $\exists x$. Mary saw x
 d. Mutual entailment holds between (b) and (c), so ellipsis is licensed.

Now consider the LF of (33) – with the CAC reconstructed to its base position. Even when reconstructed, the CAC is presumably in focus here; it is not deaccented, it is new information⁷, and (on the surface) it is pronounced in the clausal left-periphery, as is common for information-structurally distinguished material. Yet if the CAC is in focus, e-GIVENness should – contrary to fact – license ellipsis here, as shown in (37).

- (37) a. LF of (33):
 $[[\text{María}]_F [\text{compró} [\text{una casa}]_F [\text{después de que } [\text{Juan}]_F \text{ compró } [\text{un coche}]_F]_F]$
 b. Existential closure of antecedent (*[Juan]_F compró [un coche]_F*, underlined above):
 $\exists x. \exists y. x$ bought y
 c. Existential closure of elided clause (i.e. all of (a)):
 $\exists x. \exists y. \exists t. x$ bought y at time t
 d. Mutual entailment holds between (b) and (c) (because if x bought y, then x must have bought y at some time t), so ellipsis should be licensed, contrary to fact.

We suggest that the pattern seen in AGAC can be best explained under two assumptions: (a) clausal ellipsis is licensed under identity of LFs (after reconstruction of elements such as CACs)⁸, and (b) ellipsis remnants move at LF (that is, they do not themselves reconstruct). In the following sections, we step through how this derives the observed patterns.

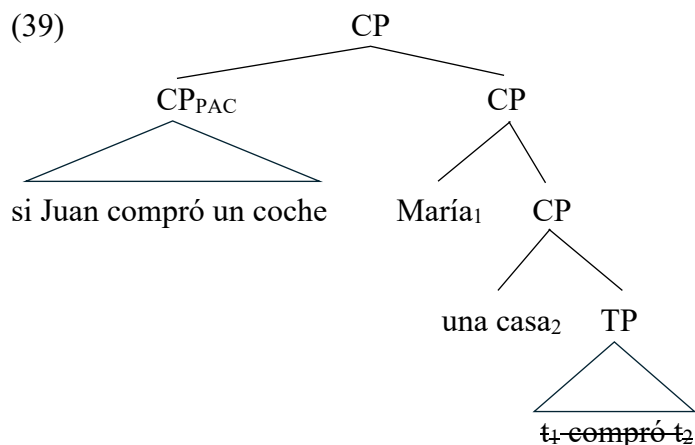
3.2. AGAC within the same clause

⁶ We choose e-GIVENness only for the sake of exposition; the point is just to show that the generalization pursued here is not trivial – that theories of ellipsis identity which otherwise seem reasonable do not *automatically* rule out antecedents contained within ellipsis sites.

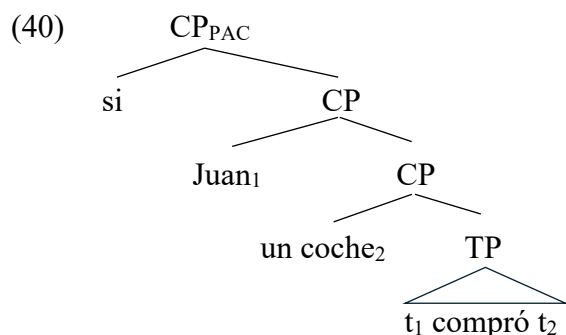
⁷ (33) can, for example, be used to answer a question like *¿Qué pasó?* 'what happened?'.
⁸ For concreteness, we assume a version of LF Parallelism (e.g. Fox & Lasnik 2003, Thoms 2015): material can be elided if its LF is identical to some antecedent up to variables, as long as variables in each LF are bound from parallel positions. But we remain largely agnostic about how ellipsis is concretely implemented (as long as identity is stated over LFs, and ellipsis remnants are taken to bind variables within those LFs); we think that what we say, for example, would also be compatible with an *LF-copy* approach (Chung, Ladusaw and McCloskey 1995, 2011).

We have shown in Section 2.4 that the adverbial clauses that can provide antecedents for AGAC are PACs, specifically adverbials that, like the premise conditionals analysed by Castroviejo & Mayol (2019), are used to contrast two situations.

- (38) *Si Juan compró un coche, María ~~compró~~ una casa.*
 if Juan bought a car María bought a house
 ‘Whereas Juan bought a car, María bought a house.’

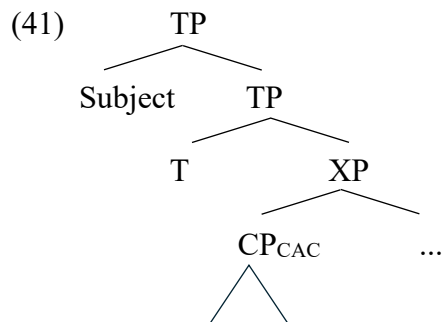


We assume that within the LF of the PAC *si Juan compró un coche*, the contrastive topics *Juan* and *un coche* move, so that the LF of CP_{PAC} above is as in (40):



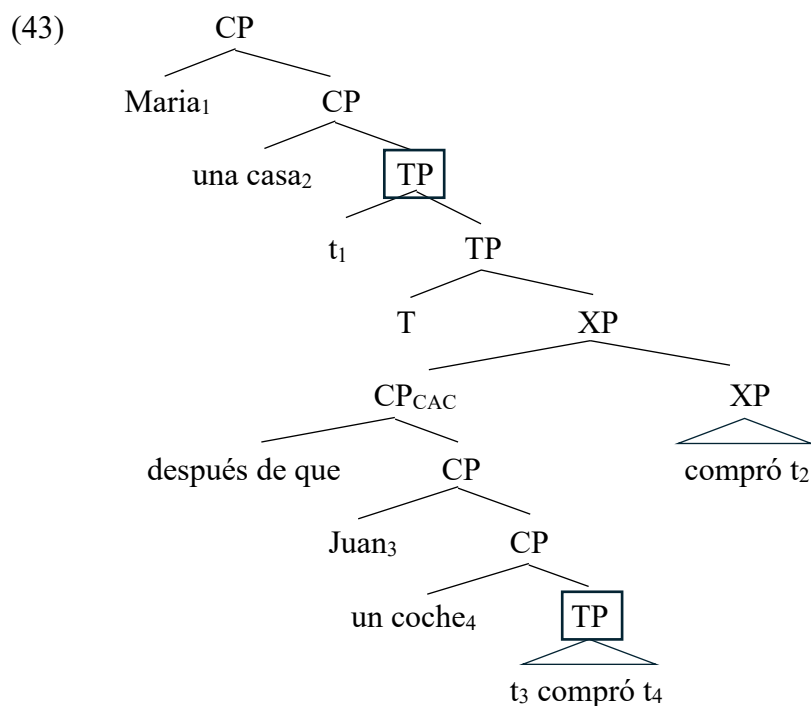
The elided TP in (39) is therefore LF-identical to the TP inside the PAC (40), and so ellipsis is licensed. Note that the ellipsis remnants must be taken to move at LF, not just PF (contra Weir 2014); if they did not, the right identity would not be obtained (because *Juan* ≠ *María* and *un coche* ≠ *una casa*).

By contrast, adjuncts which reconstruct into the ellipsis site at LF cannot be the antecedent for ellipsis. This is the case with central adverbial clauses such as hypothetical *si* ‘if’, pure concessive *aunque*, and temporal *cuando* and *mientras* ‘when’, as well as clauses introduced by *antes de que* ‘before’ and *después de que* ‘after’. (41) represents their position within the TP, at LF.



Suppose the following (putative) LF structure in (43), which attempts to create an ellipsis-licensing configuration for (the ungrammatical) (42).

- (42) **Después de que Juan compró un coche, María ~~compró~~ una casa.*
 after of that Juan bought a car María bought a house
 Intended: ‘After John bought a car, María bought a house’.



The two TP's that would have to be LF-identical are shown in boxes; but this is obviously impossible, as the higher TP contains the CAC itself, while the lower TP does not.

3.3 AGAC from a different clause

As we saw in Section 2.5, the central vs. peripheral distinction dissolves when the antecedent TP is already merged outside the clause which undergoes AGAC. This is predicted by the present account. As long as the antecedent TP is not contained within the ellipsis site, it can provide the antecedent for ellipsis:

- (44) *Mientras Juan corregía 50 exámenes, María afirmó [que ella ~~corregía~~*
 while Juan graded.IMPF 50 exams María claimed that she graded.IMPF

100].

100.

‘While [temporal or adversative] Juan was grading 50 exams, Maria claimed that she was grading 100.

On the temporal reading, the CAC *mientras Juan corregía 50 exámenes* is interpreted at LF inside the superordinate clause. Because the TP in this CAC (underlined in (45)) is not contained within the ellipsis site at LF, ellipsis is possible:

(45) [CP [TP María [CAC mientras Juan₁ 50 exámenes₂ [TP t₁ corregía t₂]]] afirmó [CP que ella₃ 100 exámenes₄ [TP t₃ ~~corregía~~ t₄]]]]]

The same of course goes for antecedents in preceding sentences in discourse, which will of course not be contained within the ellipsis site. The sentence in (46) is grammatical; the antecedent TP is underlined (we abbreviate by not showing the LF-movement of *Juan* and *un coche*).

(46) *Juan compró un coche. Después de que compró un coche, María ~~compró~~ una casa.*
Juan bought a car after of that bought a car María bought a house
‘Juan bought a car. After he bought a car, María bought a house.

Note that the empirical pattern illustrated by (44) indicates that it is not characteristics of the adjunct clauses themselves which account for the asymmetry originally noted between central and peripheral adverbial clauses as antecedents for AGAC. One could imagine arguing, for example, that peripheral adverbial clauses can affect the Question-under-Discussion (QUD, Roberts 2012) while central adverbials cannot, and that clausal ellipsis is anaphoric to the QUD or something similar (AnderBois 2014, Barros 2014, Weir 2014, Griffiths 2019 a.o.). Alternatively, one might argue that PACs, but not CACs, allow for the kind of internal movement that creates the relevant variable-binding configurations at LF (e.g. the movement of *Juan* and *50 exámenes* in (45); see in particular Haegeman 2012 for discussion of movement inside CACs and PACs). However, it appears that any adverbial clause, including central ones, can provide the antecedent for AGAC once it is in the correct syntactic configuration, suggesting that the apparent asymmetry between the classes of adverbial clause is strictly a matter of their syntactic position, rather than their internal syntax or their semantics.⁹

4. Conclusion and implications

In this article, we have examined a to date unnoticed distribution of ellipsis in Spanish: verbal ellipsis with two remnants (termed AGAC) can take an adjoined clause as its antecedent. While superficially similar to gapping, this type of ellipsis differs from it in its distribution and its inability to license determiner sharing. We have argued that the pattern shows that the antecedent cannot be itself contained in the ellipsis site. This pattern is not trivially derived in existing approaches to ellipsis, but it can be derived in an analysis which assumes (a) an LF-identity condition between antecedent and ellipsis site, and (b) LF-movement of the remnants.

⁹ To the extent that adverbial clauses, especially apparently ‘backgrounded’ or presupposed ones such as concessives with *although*, may be taken not to be able to affect the QUD, the availability of AGAC with such clauses as antecedents may be problematic for theories of clausal ellipsis such as those cited which contain a requirement of parallelism with the QUD; but exploring this fully would require a detailed investigation of the interaction of adverbial clauses with the QUD which we do not pursue here.

The identity condition can only be obeyed if the LF of the ellipsis site can find a suitable antecedent in a distinct constituent, concretely either a peripheral adjunct or a superordinate clause.

At this point, a natural question is why this pattern is not freely available in other languages. English disallows adverbial clauses as antecedents for AGAC. We have the impression that gapping in English is truly restricted to coordinate contexts. Johnson's (2009) non-elliptical, across-the-board-movement analysis of English gapping attempts to capture this. We are inclined to follow this line of thought and assume that AGAC is derived by fundamentally different underlying processes than English gapping (though see Toosarvandani (2013) for criticism): the AGAC we have analysed here for Spanish is true ellipsis of a clause, while the English pattern should be derived in some other way.

Other languages pattern not as straightforwardly. German, for instance, allows gapping-like ellipsis with conditionals (Schwarz 1998, Romero 2000), but not other types of adverbial clauses, (47).

- (47) a. *Wenn einer hier irgendwen besucht, dann ~~besucht~~ der Peter die Anne.*
 if anyone.NOM here anyone.ACC visits then visits the Peter the Anne
 ‘If anybody visits anybody else, then it’s Peter who visits Anne.’
 b. **Während ein Student ein Bier bestellt, ~~bestellt~~ ein Professor einen Cocktail.*
 whereas a student a beer orders orders a professor a cocktail
 Intended: ‘Whereas a student orders a beer, a professor orders a cocktail.’

This raises questions for the comparative analysis of adverbials and ellipsis in these languages that we leave to future research. We hope that this paper will contribute to more crosslinguistic investigation of the properties of gapping and the *No Embedding* constraint, the nature of identity constraint, as well as potentially different paths to similar surface structures in the realm of ellipsis.

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