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Anne Dagnac*

Gapping also needs vP-coordination: An argument from French NPI licensing

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Abstract: The analysis of gapping still leaves many questions open. At least three aspects remain controversial: whether it involves unpronounced structure, whether clausal or non-clausal constituents are conjoined, and whether all gapped sentences are must be analyzed uniformly. On the basis of French gapped constructions such as *Marie n'est jamais allée à Rome ni Jean à Pékin* 'Mary never went to Rome nor John to Beijing', the paper argues that gapping is not an homogeneous phenomenon. It first shows that in such gapped clauses involving *ni*, a strict Negative Polarity Item, a negation *low* inside the first TP can license the 'negative coordinator' *ni*, a fact that a TP-deletion analysis of gapping or a fragment coordination one can capture. Conversely, it shows that a vP-coordination analysis correctly predicts the properties of *ni*-gapped clauses. However, such an analysis cannot extend to gapped clauses conjoined by double *ni* : the second conjunct, this time, must be a full clause or a fragment.

Keywords: gapping, ellipsis, French, syntax, negative polarity item

*“le presbytère n’a rien perdu de son charme,
ni le jardin de son éclat”*
(G. Leroux, *Le Parfum de la dame en noir*)

1 Introduction

Besides the question whether gapping involves unpronounced structure (see among others Sag 1976. Johnson 1996; Hartmann 2000; Coppock 2001; Merchant 2004; Chaves 2005; Culicover and Jackendoff 2005; Toosarvandani 2013), the kind of constituents that are conjoined in gapped clauses is controversial, too. Gapping has been argued to involve either TP-coordination

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(a.o. Hartmann 2000; Kim 2006; Gengel 2009), vP-coordination (Coppock 2001; Johnson 1996, 2009; Toosarvandani 2013), or a fragment coordinated to the first TP (a.o. Culicover and Jackendoff 2005; Abeillé et al. 2011), while Repp (2009) and Centeno (2011) show respectively for German and Spanish that gapping is not a uniform phenomenon. This paper argues that the latter proposal holds for French, too, on the basis of gapped constructions involving the so-called ‘negative coordinator’ *ni* ‘nor’, as in *Marie n’est jamais allée à Rome ni Jean à Pékin* ‘Mary never went to Rome nor John to Beijing’. The first section presents *ni* as a strict Negative Polarity Item (de Swart 2001), which must be in the syntactic scope of a negation. The second section shows that under gapping even a negation *inside* the first TP can license *ni*, and argues that neither a TP coordination view of gapping nor a fragment one accounts for these facts. The third section shows that, conversely, a vP-coordination analysis correctly predicts the properties of *ni*-gapped clauses. The last section, however, proposes that gapped clauses conjoined by simple *ni* and by double *ni* involve conjuncts of different sizes.

2 The French negative coordinator *ni*

French *ni* can appear in two guises: a simple coordination, as in (1), which I will focus on, or a double one, reminiscent of English *neither... nor*, as in (2).¹

(1) *Je n’ ai pas parlé [pp à Paul] ni [pp à Pierre].*

I SM have not talked to Paul nor to Peter
‘I didn’t talk to Paul nor to Peter’

(2) *Je n’ ai parlé ni [pp à Paul] ni [pp à Pierre].*

I SM have talked neither to Paul nor to Peter
‘I talked neither to Paul nor to Peter’

Just as other coordinators, *ni* can conjoin various kinds of heads, phrases, cf. (2), (3), or, most importantly here, clauses, cf. (4), (5).

¹ In the text or the glosses, the following abbreviations are used: COND: conditional, DAT: dative, ECM: exceptional case marking, FUT: future, NEG: negation, NPI: negative polarity item, PART: partitive, REFL: reflexive, SM: scope marker. For the latter, see note 3.

(3) vP-coordination

Je n' ai jamais [vP vu Paul] ni [vP parlé à Pierre].
 I SM have never seen Paul nor talked to Peter
 'I have never seen John nor talked to Peter'

(4) Clausal coordination (tensed verb)

Jamais Tim ne serait allé à Paris ni Léa ne serait allée
 Never Tim SM be.cond gone to Paris nor Lea SM be.COND gone
à Rome.
 to Rome
 'Never Tim would have gone to Paris nor would Lea have stayed in Rome'

(5) Clausal coordination (ECM construction)

Jamais les envoyés du roi Jacques n' avaient vu
 Never the messengers of.the king Jacques SM had seen
autant de rivières se jeter les unes dans les autres
 so many rivers REFL throw the ones into the other
ni autant de gorges et de vallées s'entrelacer.
 nor so many canyons and valleys REFL.intertwine
 'Never had King Jacques' messengers seen as many rivers flow into each other nor as many canyons and valleys intertwine.' (J Lanzmann, *La Horde d'or*, p. 346)

Both simple and double *ni* are classically called 'negative coordinating conjunctions'. However, de Swart (2001) and Mouret (2007) convincingly argue that simple *ni* is not a negation but a strong NPI. In the next sections, I sum up their arguments, and then show that *ni* is subject to a syntactic licensing constraint.

2.1 *Ni* is a NPI

De Swart (2001) and Mouret (2007) conclude from semantic and distributional arguments that in present French² simple *ni* is a strong/strict NPI: *ni* can only appear in downward entailing non-additive contexts; it must be within the

² Previous stages of the language allowed for weaker contexts, including interrogatives, *rarely*, etc, as detailed by De Swart (2001). This usage survives marginally in literary formal style with an archaic flavor.

semantic scope of a negation present in the first conjunct or of the averidical preposition *sans* ('without'). De Swart further argues that *ni* can be seen in logical terms as a polar version of *ou* ('or') – a *or* in the scope of negation; $A \text{ ni } B$ then corresponds to $\neg (A \vee B)$, logically equivalent to $(\neg A) \wedge (\neg B)$. (6a) shows that *ni* is ruled out when no negation is present, (6b) that it is ruled out in non-additive contexts. These cases contrast sharply with (7), where a negative word precedes *ni*.

- (6) a. **Il (n') a parlé à Marie ni à Pierre.* [no negation]
 He_{SM} Has talked to Mary nor to Peter
 'He talked to Mary nor to Peter'
- b. **Il voit rarement Paul ni Marie.* [not non-additive]
 He sees rarely Paul nor Mary
 'He rarely sees Paul nor Mary'
- (7) a. *Il n' a pas/jamais parlé à Marie ni à Pierre.*
 He_{SM} has not/never talked to Mary nor to Peter
 'He did not/never talk to Mary nor to Peter'
- b. *Personne n' a parlé à Marie ni à Pierre.*
 Nobody_{SM} has talked to Mary nor to Peter
 'Nobody talked to Mary nor Peter'
- c. *Il est venu sans Marie ni Pierre.*
 He has come without Mary nor Peter
 'He came without Mary nor Peter'

In this respect, *ni* clearly differs from English *nor*, which can occur in a sentence that contains no previous negation (Huddleston and Pullum 2002), and may be analyzed as $\wedge \neg$ (Wurmbrand 2008) – (9), the French equivalent of (8), is completely out:

- (8) a. *He was one of those people who can't relax. Nor did he have many friends.*
 b. *The hotel had good views and a private beach; nor were these its only attractions.*
- (9) a. *C'était un de ces hommes qui ne savent pas se détendre.*
 It was one of these men who_{SM} know not REFL.relax
 **Ni il (n') avait beaucoup d' amis.*
 Nor he (SM) had a lot of friends
- b. *L'hôtel avait une vue splendide et une plage privée*
 The hotel had a view splendid and a beach private
 **Ni ce (n') étai(en)t ses seuls attraits.*
 Nor this (SM) was(were) its only attractions

Neither de Swart nor Mouret, however, examine in which conditions this semantic scope can actually license *ni*. In the next section, I claim that the licensing condition on *ni* must be expressed in syntactic terms.

2.2 *Ni* must be in the syntactic scope of a negation

The classical view for NPI licensing is that semantic scope has a syntactic counterpart, which is traditionally expressed by the fact that NPIs must be c-commanded by their licensor. This view has been challenged, most radically by Hoeksema (2000), who argues that NPI licensing does not actually require syntactic (“surface”) c-command, and can rely on purely semantic factors (“LF-c-command”). While Hoeksema’s proposal may be correct for weaker NPIs, it cannot apply to the licensing of the French strong NPI *ni*, for which the descriptive generalization in (11) applies, and this proves crucial for an analysis of gapped constructions in *ni*.

(11) *Ni* must be in the syntactic scope of a negation in overt syntax.

Some terminological precision is necessary as to what counts as a negation in French. I consider that it subsumes the negative marker *pas* and ‘negative expressions’ (Godard 2004) such as *personne* ‘nobody’, *rien* ‘nothing’, *aucun*, *nul* ‘no’, *jamais*, ‘never’, *nulle part* ‘nowhere’, *plus* ‘no longer’ and PPs containing them, as well as the preposition *sans* ‘without’: these negative words can indeed all act as constituent negation, cf. (12), and induce a double negation reading when they co-occur in a suitable pragmatic context, cf. (13)³;

³ I abstract here from the preverbal clitic *ne*, which is no longer semantically negative in French, and is classically analyzed as a scope marker, since in (ia), it marks that the negation born by *personne* scopes over the infinitive clause, in (ib), that it scopes over the main clause.

- (i) a. *Paul accepte [de ne voir personne].*
 Paul agrees C° _{SM} see nobody
 ‘Paul agrees to not seeing anybody’
 b. *Paul n’ accepte [de voir personne].*
 Paul _{SM} agrees C° see nobody
 ‘Paul does not agree to see anybody’

Alternatively, one can consider that *ne* is an NPI (Zeijlstra 2010), or a negative agreement morpheme on V, signaling that the TP hosting it is negative. I will traditionally gloss it as _{SM} for ‘scope marker’.

- (12) *C'était une femme dure, pas jolie, jamais contente, aimable*
 It was a woman harsh, not pretty, never happy, kind
pour personne, sans chaleur.
 to nobody, without warmth
 'It was a harsh woman, not pretty, never happy, kind to nobody'
- (13) *Il ne peut pas être misanthrope à ce point:*
 He _{SM} can not be misanthropic to this point:
PERSONNE n' aime personne!
 nobody _{SM} likes nobody
 'He can't possibly be such a misanthropist: nobody likes nobody!'

We can now turn back to the claim in (11), which accounts for otherwise mysterious data as to the behavior of *ni*: while (14), (15a) and (16b) are perfect, (15b) and (16a) are not, though they contain a negation:

- (14) *Je n' ai pas/jamais/plus parlé à Jean ni à Pierre.*
 I _{SM} have not/never/no longer talked to John nor to Peter
 'I have not/never/no longer talked to John nor to Peter'
- (15) a. *Personne n' a parlé à Jean ni à Pierre.*
 Nobody _{SM} has talked to John nor to Peter
 'Nobody talked to John nor to Peter'
- b. **À Jean ni à Pierre, personne ne leur /n' a parlé.*
 To John nor to Peter nobody _{SM} them.DAT / _{SM} has talked
 'To John nor to Peter, nobody talked (to them)'
- (16a) **Jean ni Pierre ne m' ont jamais parlé.*
 John nor Peter _{SM} me.DAT have never talked
 'John nor Peter did never talked to me'
- (16b) *Jamais Jean ni Pierre ne m' ont parlé.*
 Never John nor Peter _{SM} me.DAT have talked
 'Never did John nor Peter talk to me'

A reason for this may be that the negation must linearly precede *ni*. However, when it comes to clausal coordination, precedence proves not to be enough: in (17) and (18), the negation precedes *ni*, and the sentences are still ruled out:

- (17) **Jean ne votera pas/jamais pour Tim ni Marie ne s'abstiendra.*
 John _{SM} vote.FUT not/never for Tim nor Mary _{SM} abstain.FUT
 'John will not/never vote for Tim nor will Mary abstain'

- (18) **Jim n' ira pour rien au monde à Madrid*
 Jim SM go.FUT for nothing in.the world to Madrid
ni Marie ne restera à Rome
 nor Mary SM stay.FUT in Rome
 'Jim won't go to Madrid for any reason nor will Mary stay in Rome'

However, when the negation stands in the left periphery, in a position higher than both conjoined TPs, clausal coordination by *ni* is ruled in back as (17'–18'), the counterparts of (17–18), show:

- (17') *Jamais Jean ne votera pour Tim ni Marie ne s'abstiendra.*
 Never John SM vote.FUT for Tim nor Mary SM abstain.FUT
 'Never will John vote for Tim nor will Mary abstain'

- (18') *Pour rien au monde Jim n' ira à Madrid*
 For nothing in.the world Jim SM go.FUT to Madrid
ni Marie ne restera à Rome.
 nor Mary SM stay.FUT in Rome
 'For no reason will Jim go to Madrid nor will Mary stay in Rome'

The descriptive generalization is then as follows: as far as licensing *ni* is concerned, a negation inside TP scopes over vP; a negation in the left periphery scopes over TP. Zeijlstra's (2010) analysis of French negation offers a way to formalize it. In his view, negative expressions bear a [uNeg] feature, checked by an abstract [iNeg] syntactic operator, Op₋. Let's assume classically that *pas* stands in a NegP between T and vP – cf. Laka's (1990) lower ΣP, or Zanuttini's (2001) NegP2, and that it also hosts Op₋ checking negative expressions. The generalization in (11) can then be reformulated as (19), where negation encompasses *pas*, negative expressions and Op₋⁴:

4 C-command by a semantically negative item seems to be the right formulation for simple negative expressions, such as *jamais*, *nulle part*, *rien*, etc. The picture is a bit more complex with PPs hosting a negative expression: in this case, the PP and not the negation itself must c-command *ni*, and then counts as negative. The proper analysis of this fact exceeds the size of this paper (see for instance discussion in Kayne 1994; Hoeksema 2000): the important point here is that precedence is still not enough in this case, and the asymmetries pointed to in (14–17) hold, as (18) shows: the negative PP must be in a surface position from which it can scope over the conjoined full TPs to licence *ni*.

(19) *Ni* must be c-commanded by a negation in overt syntax.

In (14), *ni* is c-commanded by *pas* or *Op-*, in (15) by the negative subject.⁵ In (15b), left-dislocating or fronting the indirect object above *personne*, where *ni* is no longer c-commanded by any part of the negation, makes the sentence bad. In (16a), neither *Op-* nor *jamais* c-commands *ni*, and the sentence is ruled out,⁶ while in (16b), having *jamais* stand in the left periphery of the clause makes it good again⁷: following Benincà and Poletto (2004), we assume this position to be

⁵ Note that *ni* would also be licensed between the negative subject and *Op-* as in (i):(i) *Personne, à Paris ni à Rome, ne leur a Op- parlé.* ‘Nobody, in Paris nor in Rome, talked to them’.

⁶ In literary French, one can find subjects conjoined by *ni*, as in (i). However, they are generally found either in coordination with a N-word, or in contexts where *ne* can express negation by itself, remains of a former stage of the language:

(i) *Les donataires, les légataires, ni les créanciers du défunt ne pourront demander cette réduction ni en profiter.* (Jean Jaurès, *Études socialistes*, 1901, p. 196–197)

Lit. ‘The donees, the legatees nor the creditors of the deceased NEG will be entitled to ask this reduction nor benefit from it’

The very few other exceptions found in Frantext sound definitely odd and literary, to me and to all the persons I submitted the sentence to. In (ii), *ne* also acts as the sole negation:

(ii) *Les pauvres, les travailleurs ni leurs quartiers n'intéressent Aimée.* (J. P. Manchette, *Fatale*, 1977, p. 24)

Lit. ‘The poor, the workers nor their neighborhoods interest Aimée.’

I then consider they are all remnants of a former stage of the language, where *ni* was a weak NPI, that some speakers (including one reviewer) have retained.

⁷ One reviewer suggests that these facts should correlate with different semantic scope of the negation over universal quantifiers. To the extent that such inverse scope is available in French with negative expressions (a negative subject entering negative concord, as in (i), sounds far much natural), this seems to be born out. When speakers accept the marginal (ii), they do it with the expected reading, while (iii), though marginally ambiguous, has the reverse one:

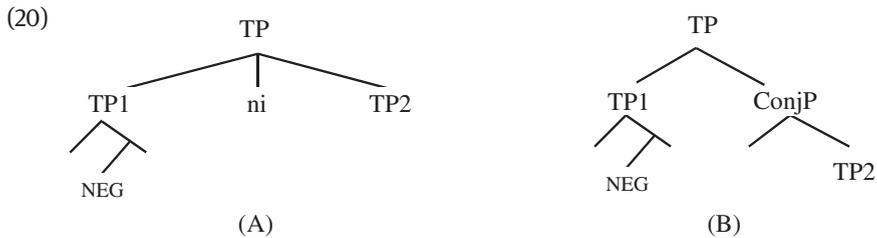
(i) *Aucun collègue ne m'a jamais parlé de cet article*
 No colleague_{SM} to.me has ever talked of this paper
 ‘No colleague has ever mentioned this paper to me’

Only available meaning: ‘No colleague is such that he ever mentioned this paper to me’

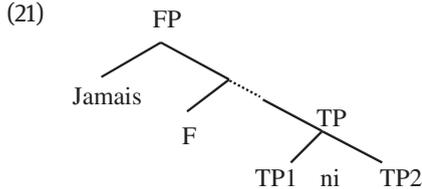
(ii) *?Tous les collègues ne m'ont jamais parlé de cet article*
 All the colleagues_{SM} to.me have ever talked of this paper
 ‘All the colleagues never mentioned this paper to me’
 ‘Every colleague is such that he never mentioned the paper’
 Excluded: ‘it was never the case that all colleagues mentioned the paper’

within the CP field, though our analysis would not crucially change if the negative adverbials were adjoined to TP. I will neutrally label this functional position FP.⁸

Importantly, the same contrast holds for TP-coordination: when the negative expression is embedded in the first TP conjunct, as in (17a) and (18a), the sentence is ruled out, since, whatever view of coordination one adopts, it does not c-command *ni*. This is shown in (20) which sketches in (A) the classical analysis of TP conjuncts, and in (B), an alternative representation along the lines of Munn (1992)⁹:



However, when the negative expression is allowed to stand in the left-periphery of TP as in (17b) and (18b), it licenses *ni*, since it can scope over the conjoined TPs, as (21) shows:

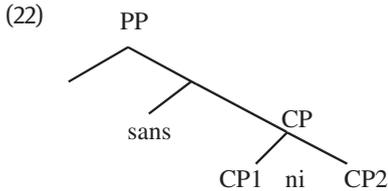


- (iii) *Jamais tous les collègues ne m'ont parlé de cet article*
 Never all the colleagues_{SM} to.me have talked of this paper
 'Never did all colleagues mention this paper to me'
 Preferred: "it was never the case that all colleagues mentioned this paper"
 Strongly disliked "Never did any colleague mention this paper".

8 Or in a higher Σ P position hosting Emphatic Negation (Laka 1990): judgements on the possibility to front more than one negative word are messy, and this point needs further investigation. The crucial point here is that the projection is higher than TP. It is also irrelevant here whether they are merged or moved there, though this may have implications for the structure of coordination: if they are moved there, it must be via ATB-movement in a structure of type (A) below, not in a structure of type (B).

9 For arguments, especially in French, against Kayne's (1994) proposal that the conjunction heads a ConjP whose specifier is TP1, see Borsley (2005).

The same holds for clauses selected by the negative preposition *sans* ‘without’: it always dominates the CPs it introduces, cf. (22), and then can license clausal *ni*. (23) is therefore grammatical.



- (23) *Cela s'est réglé sans que Paul aille à Paris*
 This refl.is solved without that Paul go.SUBJ to Paris
ni que Marie aille à Rome.
 nor that Mary go.SUBJ to Rome
 ‘This was solved without Paul going to Paris nor Mary going to Rome’

All these contrasts clearly argue that in order for *ni* to be licensed, syntax and semantics must converge: its trigger must stand in a higher scopal position, before LF. In the next section, we turn to the consequences of this syntactic constraint on the analysis of *ni*-gapped sentences.

3 *Ni* and gapping: Consequences of a licensing asymmetry

Ni can also occur in gapped conjuncts, as in (24):

- (24) *Jamais Angiolina n' a été aussi amoureuse de*
 Never Angiolina SM has been si in love of
moi ni moi d'elle.
 me nor me of her
 ‘Never has Angiolina been so much in love with me nor me with her’
 (G. Matzneff, *Ivre de vin perdu*, 1981, p. 242)

In such cases, *ni* is correctly scoped over by the preposed N-word *jamais*, and (24) is predicted to be good, whatever the right analysis of gapping. The same holds for the gapped equivalents of (17'–18') in (25–26). Whether the second conjunct is a TP, a vP, or a fragment, *ni* is indeed under the scope of the negative

expression above the first TP, and whether the missing verb in the second conjunct is ATB-moved *à la* Johnson, unpronounced or lacks any syntactic reflex, is irrelevant in this respect.

- (25) *Jamais Jean ne votera pour Tim ni Marie pour Jo.*
 Never John SM vote.FUT for Tim nor Mary for Jo
 ‘Never will John vote for Tim or Mary for Jo’
- (26) *Pour rien au monde Jim n’ ira à*
 For nothing in.the world Jim SM go.FUT to
Madrid ni Marie à Rome.
 Madrid nor Mary in Rome
 ‘For no reason will Jim go to Madrid or Mary to Rome’

However, gapped counterparts of the ungrammatical (17a-17b) also prove to be grammatical, as (27–28) show.

- (27) *Jean ne votera pas/jamais pour Tim ni Marie pour Jo.*
 John SM vote.FUT not/never for Tim nor Mary for Jo
 ‘John will not/never vote for Tim nor Mary for Jo’
- (28) *Jim n’ ira pour rien au monde à Madrid*
 Jim SM go.FUT for nothing in.the world to Madrid
ni Marie à Rome.
 nor Mary in Rome
 ‘Jim won’t go to Madrid for any reason nor will Mary to Rome’

This contrast between an ungrammatical full conjunct (29a) and a grammatical gapped one obtains whether an auxiliary (29b), a full verb (29c) or a larger chunk (29d) is gapped. The data in (29) argue for a common analysis of gapping in sentences such as (29b-d), so I won’t distinguish these cases.

- (29) *Bunk n’ a pas trouvé de suspect dans le quartier,*
 Bunk SM has not found of suspect in the neighborhood
 ‘Bunk has not found any suspect in the neighborhood’
- a. **ni Kima n’a trouvé d’indices dans l’immeuble.*
 nor Kima SM has found of clues in the building
 ‘nor has Kima found any clue in the building’
- b. *ni Kima trouvé d’indices dans l’immeuble.*
 nor Kima found of clues in the flat
 ‘nor Kima found any clue in the building’

- c. *ni Kima d'indices dans l'immeuble.*
 nor Kima of clues in the flat
 'nor Kima any clue in the building'
- d. *ni Kima dans l'immeuble.*
 nor Kima in the flat
 'nor Kima [any suspect] in the flat'

Accounts of gapping must then explain why the gapped structure is grammatical in contexts where a full clause would be ruled out for lack of a suitable licenser for *ni*. We turn now to two main accounts of gapping, the 'TP-deletion analysis' and the 'fragment analysis', and show that they fail to account for these data.

3.1 TP-deletion cannot account for the data

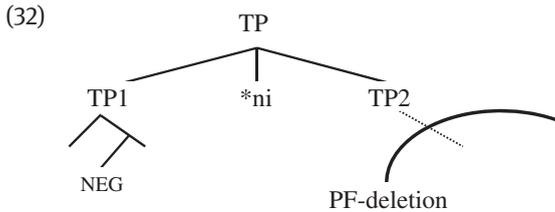
Clearly, these cases cannot be accounted for by a TP-deletion analysis of gapping. Under this view, the full and gapped clauses would share the same ungrammatical syntactic structure before PF,¹⁰ part of which would then get unpronounced. For instance, the pre-PF structure of the gapped clause in (31) would be similar to the ungrammatical (30), the only difference being that the bracketed items in (31) would not be pronounced.

- (30) **Jean ne votera jamais pour Tim ni Marie ne votera pour Jo.*
 John SM vote.FUT never for Tim nor Mary SM vote for Jo
 'John will never vote for Tim nor will Mary vote for Jo'
- (31) *Jean ne votera jamais pour Tim ni Marie [ne votera] pour Jo.*
 John SM vote.FUT never for Tim nor Mary SM vote for Jo
 'John will not/never vote for Tim nor Mary for Jo'

This analysis predicts that *ni* would fail to be licensed in overt syntax, and the gapped sentence should be ruled out for the same reason the full one is. Since the offending configuration (the non-c-commanding negation) lies completely *outside* of the unpronounced structure, as shown in (32), none of the usual repair

¹⁰ Movement of the remnants to a Topic/Focus or another leftward position inside the second conjunct does not bear on the issue at stake: we omit it for simplicity.

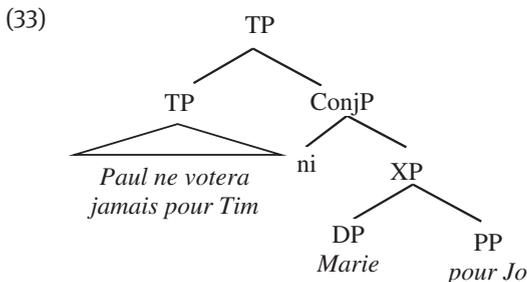
devices invoked to account for a grammaticality mismatch between full and elliptical structures (see e. g. Sag 1976; Merchant 2008), such as the deletion of an illicit trace, can be appealed to in order to account for the grammaticality of (31) once it has been processed at PF.



Since there is no reason why the non-pronunciation of the TP should affect in any way the licensing of *ni*, which stands outside the potential unpronounced structure, one must conclude that these gapped sentences cannot proceed from clausal coordination followed by a PF-deletion process.

3.2 Fragment approaches

Does a fragment approach such as Abeillé et al.'s (2011) fare better in this case? In this view, the gapped constituent is conjoined to TP, too, but it does not have the inner syntax of a clause, as sketched in (33): this special constituent, called XP in the tree, is a headless fragment that gets its clausal meaning through a special semantic process that maps it to the semantics of the clausal antecedent (see e. g. Dalrymple et al. 1991).



However, *ni* is still not c-commanded by the negation which is buried in the first clause, and it remains mysterious how the semantic process that maps the gapped construction to a clausal meaning would loosen the syntactic constraint on the licensing of an external *ni*.

If, as Abeillé (2005) argues for stripping, the fragment is adjoined to the first clause, it must be somewhere in the scope of negation, so at least below the projection in which *Op-* stands – for instance, to vP. But this alternative would run into another problem: the sentence in (34) could not proceed from ATB extraction of the WH-phrase, since the WH-P should move simultaneously from the main clause and its adjunct.

- (34) *A qui_i est-ce que Paul n' a pas offert de vin t_i*
 To whom PART that Paul SM has not offered of wine t_i
ni Jim de foie gras t_i?
 nor Jim of foie gras t_i?
 'Whom didn't Paul offer wine nor Jim foie gras?'

Conversely, asymmetric extraction from the first conjunct should be possible, contrary to facts, cf. the ungrammaticality of (35):

- (35) **A qui_i est-ce que Paul n' a pas offert de vin t_i*
 To whom part that Paul SM has not offered of wine t_i
ni Jim de foie gras à ses parents?
 nor Jim of foie gras to his parents
 'Whom didn't Paul offer wine nor Jim foie gras to his parents?'

In their current shape, neither a PF-deletion nor a fragment approach¹¹ seems able to predict the grammaticality of gapped clauses conjoined by *ni*: both

¹¹ As a reviewer underlines, *ni* can head a fragment answer in the absence of any syntactic licenser, cf. (i). I consider these data fall under the ambit of an account of fragment answers, not of *ni* or gapping.

- (i) *Qui est-ce qui va semer ce blé? dit la petite poule rouge.*
 'Who is going to seed this wheat? said the little red chicken.
 – *Pas moi, dit le dindon.*
 'Not me', said the turkey.
 – *Ni moi, dit le canard.*
 'Nor me, said the duck'

However, approaches that view gapping as an instance of fragment coordination can capitalize on the fact that both elliptical contexts escape syntactic scopal constraints. Since the asymmetries I presented here affect clausal and non-clausal conjuncts alike, though, it cannot stem from the non-clausal nature of the fragment *per se*. Even for these analyzes, why syntactic constraints on the licensing of *ni* are loosened then remains to be explained.

require a stipulation that the licensing conditions on *ni* should be somehow loosened in the elliptical structure. In the next section, I show that an analysis based on a smaller coordination makes the right predictions.

4 *Ni* and vP-coordination analyses

Gapping has been proposed to involve vP- rather than TP/CP-coordination (see in particular Johnson 1996, 2009; Coppock 2001): one aim of these proposals was to account for sentences such as (36), where the negation scopes over the conjunction and does not distribute over the conjuncts – which the *ni* cases echo under a different guise:

- (36) *Ward cannot eat caviar and Sue beans.*
‘Ward cannot eat caviar and Sue cannot eat beans’

In Johnson’s proposal, the vPs *Ward eat caviar* and *Sue eat beans* are conjoined below T; the verbs ATB-move to a higher Pred projection, while the first subject asymmetrically moves to spec, TP. Hence, the only deletion that occurs is deletion of the lower copies of moved items. Coppock (2001) and Toosarvandani (2013), while following Johnson in considering low coordination is required for (some cases of) gapping, argue that VP-ellipsis, rather than movement, is responsible for the gap.¹² I will concentrate on Johnson’s analysis, and show that low coordination directly accounts for the properties of French *ni*-gapped sentences.

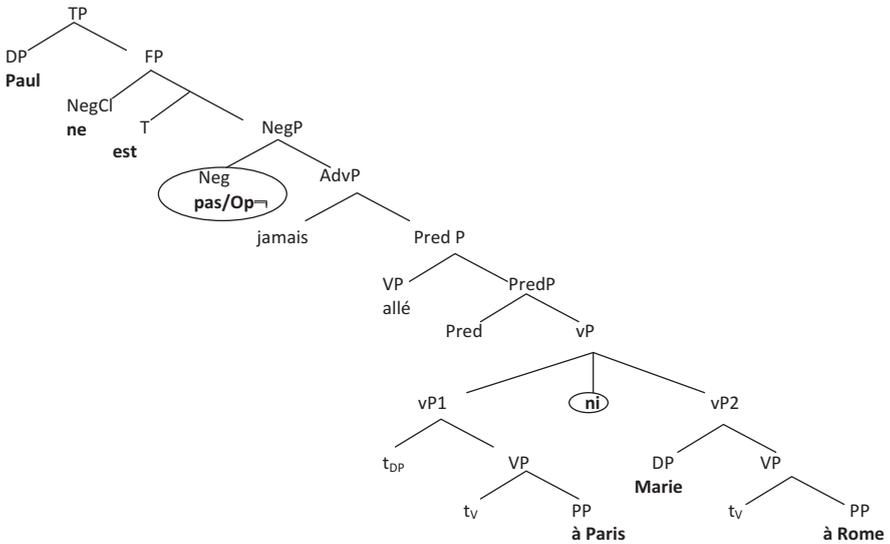
4.1 *Ni* and low coordination: The general case

Along Johnson’s lines, the *ni*-gapped sentence in (37) has the structure in (38):

- (37) *Paul nen’ est pas/jamais allé à Paris ni Marie à Rome*
Paul_{SM} is not/never gone to Paris nor Mary to Rome
‘Paul has never gone to Paris nor Mary to Rome’

¹² Since French rules out VP-ellipsis, the latter proposal would additionally have to explain why it licenses it just in this case.

(38)



In this configuration, *ni* is c-commanded by *pas/Op¬*, which entails the possibility of *ni* to be syntactically licensed in (37).¹³

Viewing *ni*-gapped sentences as proceeding from vP- rather than TP-coordination is compatible with the fact that though *ni* can conjoin clauses, it seems unable to conjoin bare TPs, while it conjoins easily CPs with an overt C°

13 A problem sometimes put forward against Johnson's proposal is that gapping allows WH-P remnants:

- (i) *Which books do you want to check out now, and which Δ next week?* (Hankamer and Depiante 2005:15, quoted by Toosarvandani 2013)

The grammaticality of such constructions with French *ni*-gapped sentences seems very dubious to me:

- (ii) **Où n'est-il pas parti en décembre ni où en janvier?*
 'Where didn't he go in December nor where in January?'

This may support both the suggestion made by Toosarvandani (2013) that sentences like (i) do not involve low coordination, and mine that *ni*-gapped sentences do involve low coordination.

or clauses with an extended left-periphery that can host a fronted negative expression. This is made clear when *ni* is in the syntactic scope of *sans*, as the contrasts in (39) show:

- (39) a. *On l'a fait sans que Paul pleure ni que Marie*
 We it.have done without that Paul weep.SUBJ nor that Mary
s'inquiète.
 worry.SUBJ
- b. **On l'a fait sans que Paul pleure ni Marie*
 We it.have done without that Paul weep.SUBJ nor Mary
s'inquiète.
 worry.SUBJ
 'We did it without Paul weeping or Mary getting worried'
- c. *On l'a fait sans que jamais Paul ne pleure*
 We it.have done without that never Paul SM weep.SUBJ
ni Marie ne s'inquiète.
 nor Mary SM worry.SUBJ
 'We did it without Paul ever weeping or Mary getting worried'

A low coordination analysis is also in line with the most productive patterns of *ni*-coordination. Clausal-coordination by *ni*, though grammatical as long as a negative expression c-commands *ni*, is infrequent in French, while both *ni*-gapped sentences and vPs conjoined by *ni* are natural and relatively frequent. For instance, both *ni*-gapped conjuncts and *ni*-conjoined vPs like (40) can be found in the 500 texts written after 1965 hosted by Frantext, the national written corpus, which contain no occurrence of *ni* conjoining two main clauses.

- (40) *Il n' avait pas fait son devoir d'anglais,*
 He SM had not done his exercise of English
ni préparé les interrogations écrites.
 nor prepared the assignments written
 'He hadn't done his English exercise, nor prepared the written assignments'
 (G. Pérec, *Je suis né*, p. 17)

More crucially, such an analysis also accounts for the availability of wide scope items in *ni*-gapped structures, while they are impossible in full ones, as the contrasts in (41–42) shows:

- (41) a. **Ici, jamais chaque enfant_i n' aura un violoncelle ni*
 Here, never each kid SM have.FUT a cello nor
ses parents_i n' auront les moyens de lui_i en louer un.
 his parents SM have.FUT the money of to.him PART rent one
 'Here, never will each child own a cello, nor will his parents have
 enough money to rent one for him'
- b. *Ici, jamais chaque enfant_i n' aura un violoncelle ni*
 Here, never each kid SM have.FUT a cello nor
ses parents_i les moyens de lui_i en louer un.
 his parents the money of to.him PART rent one
 'Here, never will each child own a cello, nor his parents enough money
 to rent one for him'
- (42) a. **Ici, jamais aucun enfant_i n' a de portable ni son père_i*
 Here never no child SM has of mobile nor his father
ne conduit de BMW.
 SM drives of BMW
 'Here, never does any child have a mobile nor does his father drive
 a BMW'
- b. *Ici, (jamais) aucun enfant_i n' a de portable ni son père_i*
 Here (never) no child SM has of mobile nor his father
de BMW.
 of BMW
 'Here, no child (ever) has a mobile nor his father a BMW'

In (41/42a), two clauses are conjoined by *ni*, and *jamais* scopes over *ni* which is then correctly licensed. However, the subject of the first TP, *chaque/aucun enfant*, cannot scope over *ses parents/son père*, ruling the sentence out. The same should be true of (41/42b) if they involved clausal coordination, too, contrary to facts. If they involve vP coordination, on the other hand, *chaque/aucun enfant* can scope over *ses parents/son père* and the sentences are rightly predicted to be good.

4.2 Gerunds and infinitives

In this section, I focus on untensed clauses with a DP subject, whether the latter has special case properties, as in gerunds and ECM constructions, or is raised,

as is the case after modal verbs in French. I show that a vP-coordination analysis is also compatible with the behavior of *ni*-gapped clauses in these contexts.

4.2.1 Gerunds

The asymmetry between an ungrammatical full conjunct and a grammatical gapped one also holds for gerund clauses with DP subjects.

- (43) a. **Anne n' ayant plus d'argent ni Jim n' ayant de temps,*
 Ann SM having no more of money nor Jim SM having of time
ils ont annulé leur voyage.
 they have cancelled their trip
 'As Ann had no more money nor did Jim have any more time, they cancelled their trip'
- b. *Anne n' ayant plus d'argent ni Jim de temps,*
 Ann SM having no more of money nor Jim of time
ils ont annulé leur voyage.
 they have cancelled their trip
 'As Ann had no money left nor Jim time, they cancelled their trip'

This is predicted by our proposal since, apart for the special properties of their subjects, they share the structure of tensed clauses (cf. Pollock 1989: 408).

4.2.2 Infinitives selected by modal verbs

Infinitives selected by modal verbs can be conjoined by *ni*, as shown in (44), and the second conjunct can be gapped, cf. (45):

- (44) *Paul ne peut pas aller à Rome ni Marie quitter Madrid.*
 Paul SM can not go to Rome nor Mary leave Madrid
 'Paul can't go to Rome nor Mary leave Madrid'
- (45) *Paul ne peut pas aller à Rome ni Marie à Madrid.*
 Paul SM can not go to Rome nor Mary to Madrid
 'Paul can't go to Rome nor Mary to Madrid'

Whatever the exact analysis of such structures,¹⁴ they are predicted to be good in our analysis, whether full or gapped, since *ni* is c-commanded by the negation in the main clause.¹⁵

14 Note that such constructions can be viewed either as a clausal coordination of the infinitive arguments of the modal, as in (i), or as involving a gapped modal in the second conjunct. In the latter case *ni* would have to be c-commanded by the negation on the first modal, so, in our view, it would imply coordination of the two vPs headed by *peut*, as in (ii):

- (i) *Paul ne peut pas* [_{TP/CP}(*t_{Paul} aller à Rome*) *ni* (*Marie quitter Madrid*)]
 Paul can't *t_{Paul}* go to Rome nor Mary leave Madrid
- (ii) ([_{TP} *Paul ne peut pas* (_{vP} [_{vP1} *t_{Paul} t_{peux}* (_{TP_{inf}} *t_{Paul} T^o_{inf}* (_{vP} *t_{Paul} aller à Rome*)])]) *ni* [_{vP2} *t_{peux}* (_{TP_{inf}} *Marie T^o_{inf}* (_{vP} *t_{Marie} rester à Madrid*)])])]

In both cases the subject of the first conjunct must move to the specifier of the main TP. For French, the right structure is, as far as I can see, undecidable.

15 What is not predicted is the behavior of *ni* when the first conjoined *infinitive* hosts a negation. Though judgements are messy, both full and gapped infinitives seem indeed able to be conjoined by *ni*, as (i) and (ii) show respectively for epistemic and deontic readings of the modals.

- (i) *Jim pourrait ne pas aller à Rome.*
 Jim could SM not go to Rome
 'Jim could NOT go to Rome'
- a. *?/ni Marie rester à Madrid.*
 nor Mary stay in Madrid
 'nor Mary stay in Paris'
- b. *ni Marie à Madrid.*
 nor Mary in Madrid
 'nor Mary in Madrid'
- (ii) *Désormais, Jim peut ne plus jamais faire de maths*
 From now on Jim can SM no longer ever do of maths
 'From now on, Jim can do maths no longer'
- a. *?/ni Marie lire de livres.*
 nor Mary read of books
 nor Mary read books'
- b. *ni Marie de sport.*
 nor Mary of sports
 nor Mary sports'

If full TPs are conjoined in (ia), and (iia), *ni* should fail to be licensed, since it is not c-commanded by the negation inside the first infinitive: for speakers that accept the sentence, only the infinitive vPs may be conjoined. The difference with ECM negated infinitives may also suggest that this behavior is linked either to the exact structure of raising verbs complements, or to the interferences between modality and negation.

4.2.3 Gapping and ECM infinitives

Infinitives conjoined by *ni* can also be found after ECM negated verbs, in their full (46) and gapped (47) versions, unsurprisingly since the negation in the main clause is always in a position to license *ni*:

(46) *Il n' a pas vu Jim parler à Léa ni Jean l'embrasser.*
 He_{SM} has not seen Jim talk to Lea nor John her kiss
 'He didn't see Luc talk to Lea nor John kiss her'

(47) *Il n' a pas vu Luc parler à Léa ni Jean à Paul.*
 He_{SM} has not seen Luc talk to Lea nor John to Paul
 'He didn't see Luc talk to Lea nor John to Paul'

However, the infinitive can also be negated as in (48), in a pragmatic context justifying the perception of the non-occurrence of an event (e. g., in a crime case where a conversation between Jim and Lea is crucial):

(48) *Le témoin a vu [Jim ne pas parler à Léa].*
 [DP [TP [NegP [vP]]]]

When such full infinitive clauses are conjoined, then, the prediction is that *ni* is not licensed, since *ni* is inside the first clause, and the sentence is out, which is borne out, cf. (49), the counterpart to (47) with an embedded negation:

(49) **Le témoin a vu [Jim ne pas parler à Léa] ni [Jean (ne pas) l'embrasser].*
 [DP TP NegP vP] ni [DP NegP1 TP NegP vP]

Our analysis predicts that in a gapped version of the second conjunct, the *ni* conjoining the vPs are c-commanded by the negation, yielding a grammatical sentence¹⁶:

(50) *Il a vu Jim ne pas parler à Léa ni Jean à Paul.*
 [DP TP NegP [vP ni vP]]

Some speakers find embedded negations in ECM rather marked, but they find (48) and (50), or (51) and (52) equally good, which confirms our proposal's predictions.

¹⁶ Whether the negation in infinitive structures stands in NegP or is adjoined to vP is irrelevant here, since it would still scope over the conjuncts.

- (51) [in the context of an acrobatics performance:]
J'ai senti Léo ne pas prendre appui sur mon genou.
 I felt Leo SM not lean on my knee
 'I felt that Leo hadn't leant on my knee'
- (52) *J'ai senti Léo ne pas prendre appui sur mon genou ni Tom*
 I felt Leo SM not lean on my knee nor Tom
sur mon épaule, et j'ai su qu'on allait tomber.
 on my shoulder and I have known that we went fall
 'I felt that Leo hadn't leant on my knee nor Tom on my shoulder, and
 I knew we were going to fall'

A low coordination analysis of *ni*-gapped sentences then straightforwardly accounts for the ability of *ni* to be licensed in all these contexts, while being consistent with the usual patterns of conjunction by *ni* and the ability for quantifiers to bind into the gapped conjunct. In the next section, I turn to gapped conjuncts introduced by double *ni*, and show that they argue for a non-homogeneous analysis of gapping.

5 Simple and double *ni*

Clausal constituents can also be conjoined by the double conjunction *ni... ni* 'neither nor'. Though both clausal coordination and gapping are rather unusual with *ni... ni*, and have a very literary flavor, they are attested, as (53) and (54) show respectively:

- (53) *Ni l'usufruitier ne peut disposer du fonds, ni celui*
 Nor the usufructuary SM can have of.the funds nor the.one
qui a la nue propriété ne peut disposer des fruits.
 who has the ownership SM can have of.the fruits
 'Neither can the usufructuary have the property nor can the owner have
 the income'
 (Jean Jaurès, *Études socialistes*, 1901, p.165)
- (54) *Ni un français ne peut prononcer un mot anglais,*
 nor a French SM can pronounce a word English
ni un anglais ne peut prononcer un mot français.
 nor a English SM can pronounce a word French

‘Neither can the French pronounce a single English word, nor can the English pronounce a single French word.’

(R. De Gourmont, *Esthétique de la langue française*, 1899, p.84)

Abeillé et al. (2011) put forward a crucial argument against Johnson’s analysis of gapping: in French double *ni* constructions, one *ni* immediately precedes each conjunct. A vP-coordination analysis then wrongly predicts the ungrammatical (55b) instead of the grammatical (55c) to be the gapped equivalent of (55a), a shortened version of (54):

- (55) a. *Ni Paul ne connaît un mot d’ anglais ni Jim*
 Nor Paul_{SM} knows one word of English nor Jim
ne connaît un mot de français.
 SM knows one word of French
 ‘Neither does Paul know a single English word, nor does Jim know a single French word’
- b. **Paul ne connaît ni un mot d’ anglais ni Jim*
 Paul_{SM} knows nor one word of English nor Jim
un mot de français.
 one word of French
 ‘Paul knows neither a single English word, nor does Jim know a single French word’
- c. *Ni Paul ne connaît un mot d’ anglais ni Jim*
 Nor Paul_{SM} knows one word of English nor Jim
un mot de français.
 one word of French
 ‘Neither does Paul know a single word of English nor Jim a single word of French’

However, this argument holds only if *all* instances of gapping share the same structure, a view that has been argued against for other languages (see for instance Repp 2009 for German, and Centeno 2011 for Spanish). Simple and double *ni* indeed exhibit differences that bear on their behavior as regards gapping. First, as noted by De Swart (2001) and Mouret (2007), unlike simple *ni*, double *ni* is a negative expression: it turns the constituents it conjoins into a global negative item, which triggers a dependency-*ne* on the verb of the clause it pertains to – the main clause in (56a), where it negates the CP object, the embedded TP it negates in (56b).¹⁷

¹⁷ Mouret (2007) also clearly shows that it enters Negative Concord chains with the locality properties of negative items, not that of NPIs.

- (56) a. *Il n' a su ni que Jim était à Rome ni que Léa*
 He_{SM} has known nor that Jim was in Rome nor that Lea
était à Paris.
 was in Paris
 'He knew neither that Jim was in Rome neither that Lea was in Paris'
- b. *Il a dit que ni Jim n' était à Rome ni Léa n'*
 He has said that nor Jim_{SM} was in Rome nor Lea_{SM}
était à Paris.
 was in Paris
 'He said that neither was Jim in Rome nor was Lea in Paris'

This entails an important difference between *ne... pas... ni* and *ni... ni*: double *ni* can conjoin TPs, as is the case in (56b) as well as in (57a), which contrasts with (39b) featuring simple *ni*, repeated under (57b)¹⁸:

- (57) a. *On l'a fait sans que ni Paul ne pleure*
 We it.have done without that ni Paul_{SM} weep.SUBJ
ni Marie ne s'inquiète.
 nor Mary_{SM} REFL.WORRY.SUBJ
 'We did it without neither Paul weeping nor Mary getting worried'
- b. **On l'a fait sans que Paul pleure ni Marie*
 We it.have done without that Paul weep.SUBJ nor Mary
s'inquiète.
 REFL.WORRY.SUBJ
 'We did it without Paul weeping nor Mary getting worried'

Likewise, (58a) contrasts with (41b) repeated here as (58b): gapped clauses with double *ni* don't admit binding from the first conjunct's subject into the second one, as (58a) shows:

- (58) a. **Ici, ni chaque enfant n' aura (jamais) un violoncelle*
 Here, nor each kid_{SM} have.FUT (never) a cello
ni ses parents les moyens de lui en louer un.
 nor his parents the money of to.him_{PART} rent one
 'Here, neither will each child (ever) own a cello, nor his parents enough money to rent one for him'

¹⁸ One reviewer does not find a clear difference between (57a) and (57b), but seems to equally dislike all clausal uses of *ni... ni*, including the attested ones. While my informants, on the whole, tend to find clausal (*ni*)... *ni* kind of awkward, they unanimously find the starred examples bad or very strongly degraded.

- b. *Ici, jamais chaque enfant n' aura un violoncelle ni*
 Here, never each kid SM have.FUT a cello nor
ses parents les moyens de lui en louer un.
 his parents the money of to.him PART rent one
 'Here, never will each child own a cello, nor his parents enough money
 to rent one for him'

In this respect, French gapped clauses with double *ni* pattern with Spanish gapped clauses with simple or double *ni*: Centeno (2011: 97–99) argues that in Spanish, gapping in NEG-*nor* clauses must involve CP-coordination; she analyzes Spanish *ni* as 'and NEG' and grounds her proposal on the impossibility of cross conjunct binding in such contexts, as (59a) and (59b), her (221) and (222), show. If she is right, then the same conclusion must be drawn for French gapped clauses with double *ni*: (59c), the French equivalent of (59b) is ungrammatical, too.

- (59) a. **Cada chico_i no ha tocado la guitarra ni su_i padre []*
 Each boy not has played the guitar nor his father []
el trombón.
 the trombone
 'Each boy has not played the guitar nor his father has played the trombone.'
- b. ?? *Ni cada chico_i ha tocado la guitarra ni su_i padre []*
 Neither each boy has played the guitar nor his father []
el trombón.
 the trombone
 'Neither each boy has played the guitar nor his father has played the trombone.'
- c. **Ni chaque enfant n' a joué de la guitare ni son père*
 Nor each boy SM has played of the guitar nor his father
du trombone.
 of the trombone
 'Neither each boy has played the guitar nor has his father played the trombone.'
- d. *Chaque enfant n' a pas joué de la guitare ni son père*
 Each boy SM has not played of the guitar nor his father
du trombone.
 of the trombone
 'Each boy has not played the guitar nor his father the trombone.'

Conversely, (59d), the equivalent of (59a), is good, which confirms that French gapped clauses with simple *ni*, relying on vP-coordination, differ both from French gapped clauses with double *ni* and from Spanish gapped clauses involving both kinds of *ni*. Note that Centeno analyzes both Spanish *ni... ni* and NEG... *ni* as *and NEG*, in parallel to Wurmbrand's (2008) analysis of English *nor* and German *noch*. For French, Mouret (2007) independently argues that French double *ni* involves (two instances of) *and NEG*, and thus differs from the NPI *ni* that corresponds to *or*. The status of the connectors then cross-linguistically pattern with the structure of gapped structures. As for French *ni... ni* gapped clauses, they can proceed either from CP/TP-coordination plus deletion (cf. Centeno [2011]), or from the coordination of a fragment (cf. Abeillé and Mouret [2010]).

The wrong predictions made by a vP-coordination analysis for French *ni... ni*-gapped clauses do not undermine our analysis of *ni*-gapped clauses: it only shows that in French, like in other languages, gapping can proceed from different mechanisms.

6 Conclusion

In French, the need for an overt item in scopal position to license simple *ni* adds a syntactic argument to approaches arguing for the necessity of a low-coordination structure in gapping: the properties of gapped constituents conjoined by simple *ni*, whether they belong to a tensed or untensed clause, can indeed be accounted for under such an analysis, while TP-deletion approaches fail to predict the data, and fragment approaches require further investigation on how non-canonical constructions accommodate these constraints. The contrasts between gapped clauses involving simple and double *ni* also suggest that while the former stem from low coordination, the latter rely on clause level coordination: they comfort expanding claims in the literature that gapping is not a uniform phenomenon, and that in each language different instances of gapping may coexist, and advocate for a finer-grained investigation of gapping.

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