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Me too fragments in English and French: a direct interpretation approach

Abstract: Additive fragments, comprising a nominal remnant and an additive adverb (e.g., *too*, *either*), are a particular type of stripping. On the basis of new corpus data in English and French, we show that such fragments do not always have a verbal clause as their antecedent, and that when they do, different kinds of mismatch are possible between a verbal equivalent and the actual fragment. This challenges most approaches based on syntactic reconstruction. We also show that their interpretation is more flexible than previously thought, since they can be used for interrogative, exclamatory, or ordering purposes. We distinguish between their contrastive (non-coreferent) use (*A: John left. B: Me too*.) and emphatic (coreferent) use (A: *John left. B: HIM too!)*. We propose a direct interpretation analysis that resorts to no syntactic reconstruction of a verbal clause. The proposed analysis, developed within the framework of construction-based HPSG, allows us to capture not only their properties sharing with other fragments (short answers and negative stripping) but also their unique constructional properties.

Keywords: additive adverb; direct interpretation; ellipsis; English; fragment; French; presupposition; stripping

1 Introduction

Fragments (non-verbal utterances with a clausal content) are pervasive in natural language, and come in several varieties. We focus here on fragments with a nominal remnant like *me* followed by an additive adverb (*too/either/neither*) in

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English and French (*aussi/non plus*), which could fall under 'bare argument ellipsis' or 'stripping' (Hankamer and Sag 1976: 409). The additive adverb *too* in English can be used either in the sentence final or preverbal position (Huddleston and Pullum 2002; Winterstein and Zeevat 2012):

(1)   a.   *We are going to be there too.*
      b.   *Paul too was arrested and taken into custody.*

The corresponding adverb in French can adjoin to an NP, or appear anywhere in the VP (Roussarie 2021):

(2)   a.   *Pour   Paul   aussi,   la   vie   était   douce.*
           for   Paul   too   the life was   sweet
           'For Paul too, life was easy.'
      b.   *Paul a (aussi) été (aussi) arrêté (aussi) hier (aussi).*
           'Paul has (too) been (too) arrested (too) yesterday (too).'

The additive adverb also occurs in fragments, as seen from the following attested data extracted from COCA (Corpus of Contemporary American English) and Frantext (online database of French literature):[1]

(3)   a.   *A: I'm ready for my dessert right now. B: Me *(too).* (COCA 2019 MOV)
      b.   *A: Have a safe trip back home. B: You *(too).* (COCA 2018 TV)

(4)   a.   *Elle était ravie et moi *(aussi).*
           'She was happy and me too.' (Frantext: Dorin 1984)
      b.   *Je   ne   vois   rien …   Toi   *(non plus)?*
           I   NEG   see   nothing … you   neither
           'I don't see anything … You either?' (Frantext: Pécherot 2003)

The first peculiarity of the additive adverb (*too* and *aussi*) in such a fragment is that its presence is obligatory (Kaplan 1984), unlike those in (1). Another key property of the additive adverb is that it functions as a presupposition trigger (Ahn 2015; Rullmann 2003; Winterstein and Zeevat 2012). For instance, in (3a) *me too* presupposes that there is someone else who is ready for the dessert.[2] The fragment with *too*, which we call

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1 For convenience, we added 'A' and 'B' to the corpus data to mark dialogue turns.
2 In English and French, as noted in Abeillé (2005), such fragments are also possible without an adverb, with a conjunction and a marked intonation (e.g. *I'm ready for my desert, and you? Elle était ravie, et toi?* 'She was happy, and you?'). In English, the same type of obligatoriness and presupposition can be found with Verb Phrase Ellipsis (VPE) (Kaplan 1984):

(i)   a.   *Kim comes from Seoul, and Lee does *(too).*
      b.   *I did the research, and you can *(too).*

'additive fragment', usually follows a declarative clause (the antecedent) from which it takes its propositional content. The NP inside the fragment (the remnant) is typically associated with a correlate in the antecedent: it is usually the subject, as seen from (2) and (4). However, an object correlate is also possible, as illustrated by the following:[3]

(5)   a.   *I think Superman brought <u>me</u> home. You too?* (COCA 1994 TV)
      b.   *Cela   l'   inquiétait,   et   moi   aussi   par   sympathie.*
           this   her.CL   worried,   and   me   too   by   sympathy
           'This was worrying her, and me too by sympathy.' (Frantext: Chandernagor 1981)

There are two main competing theories for the analysis of such fragments: (syntactic) derivational theories (Depiante 2000; Merchant 2001, 2005; Weir 2014) and direct interpretation theories (Ginzburg and Sag 2000; Kim and Abeillé 2019; Nykiel and Kim 2022). To obtain the clausal meaning of such a fragment, the derivational analysis would introduce a sentential source and apply a move-and-delete operation. For instance, the move-and-delete analysis of Merchant (2003) would delete the identical clausal structure after focus fronting of the remnant *Lee* in the second conjunct of (6a), as given in (6b):

(6)   a.   <u>*Kim*</u> *comes from Seoul, and Lee, too.*
      b.   *and* [$_{FocP}$ *Lee* [$_{IP}$ ___ ~~*comes from Seoul*~~]] *too.*

As given in (6b), the subject NP *Lee* is taken to be moved to the Spec of FocP and then the remaining clause undergoes ellipsis. The particle *too* is supposed to adjoin later to the fragment *Lee*. Alternatively, a direct interpretation (DI) analysis would postulate a sentence projection from the non-verbal remnant with no clausal source, as presented in the following:

(7)   [$_S$ [*Lee, too*]].

The DI approach, referring to the given contextual information to get a propositional meaning, licenses the fragment to function as a NSU (non-sentential utterance) with a clausal semantic interpretation but without syntactic reconstruction of a clausal source. The content of the antecedent is converted to an open proposition with an argument variable (instead of the correlate) and the content of the fragment is computed by having this proposition take (the content of) the remnant as its argument (see Culicover and Jackendoff 2005; Ginzburg and Sag 2000; Jacobson 2016).

In this paper, we provide a corpus study of additive fragments in English and French, based on the data from COCA (Davies 2008) and Frantext (www.frantext.fr) after 1980, and then discuss the attested data that challenge a derivational

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3 Throughout the paper, we underline the correlate of the fragment pronoun (if any).

move-and-delete analysis but favor a variant of DI where the additive adverb directly adjoins to the NP.

Fragments have recently been studied extensively, but to our knowledge, there have been no corpus studies on additive fragments.[4] Having only one argument left in the fragments, additive fragments appear to be a type of stripping except for the presence of an additive adverb. Since Hankamer and Sag (1976), stripping has been considered a surface anaphor, therefore more constrained than deep anaphors such as VP ellipsis. As Kehler (2019) has it: "[unlike VP ellipsis], other forms of ellipsis, such as bare remnant ellipsis (e.g., gapping and stripping), are far less sympathetic to nonlocal antecedents, cataphora, situationally-evoked antecedents, and so forth." On the basis of new corpus data, we will show that additive fragments, as a type of stripping, have much more flexibilities in their uses than previously thought and even allow for non-local antecedents and exophoric uses.

2 Corpus data

For English data, we used the COCA corpus, which continues to be updated (Davies 2008). When we used it in 2021, it contained about one billion words of text from eight genres: spoken, fiction, popular magazines, newspapers, academic texts, TV and Movies subtitles, blogs, and other web pages. With the simple string queries 'Pronoun + additive adverb' followed by a (declarative, interrogative, exclamative) punctuation mark, respectively, we randomly selected 1,000 tokens and investigated a total of 984 tokens relevant for this study, as in Table 1:[5]

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4 Additive fragments bear some similarities with negative stripping, with a negative adverb (*Elle était ravie et moi non.* 'She was happy and me not'). For studies of negative stripping in English (e.g., *John left, but not me.*), see, among others, Depiante (2000), Merchant (2003), Johnson (2009), and Kim (2021). From a construction-based perspective, the similarities and differences imply that the two can belong to a family of construction, but each is subclassified. See (42) below.

5 Our search limits the remnant to pronouns. NP remnants can also be a proper noun or have a common noun as head, but their behavior is basically similar to that of pronoun remnants. For instance, as seen from the following, NP remnants with common nouns can also have a variety of grammatical functions like subject, object or prepositional object:

(i)   a.   *Dougal was there, at the flogging. My father, too.* (COCA 2015 FIC)
        b.   *Bring them with us. The boy, too.* (COCA 1995 TV)
        c.   *The old man snorted again, and I pressed myself into the seat, backing away from his breath. His voice, too.* (COCA 2000 FIC)

Considering these similarities and the feasibility of our research, in this paper, we focus on Pronoun + *too/either/neither* fragments only. We acknowledge that some other additive adverbs (e.g., *also*, *similarly* in English and *également*, *pareillement* in French) are also possible.

Table 1: Samples of pronoun + additive adverb + punct from COCA.

	.	?	!	total
too	294	113	57	464
either	221	9	2	232
neither	192	35	1	228
total	707	157	60	984

For French data, we used Frantext, which is a database of French literature, that is regularly expanded (www.frantext.fr). We selected the subcorpus of contemporary French (after 1980) that comprised 558 texts, 36 million words in the Spring of 2021. We searched for pronominal fragments with an additive adverb (*aussi* 'too', *non plus* 'neither'), and found 8,300 Pronoun + *aussi*, and 1,334 Pronoun + *non plus*.[6] We excluded the tokens where the sequence did not make up a fragment clause, and took a random sample for each pronoun+adverb combination. Overall, we found more positive than negative fragments, and more singular than plural fragments. The tokens that we used in our study are given in Table 2.

In this study, using these English and French type tokens relevant for our study, we performed qualitative research to investigate their uses in attested data. In what follows, we first present syntactic properties of the additive fragments referring to the extracted data and then discuss embeddability of such fragments. We then turn to their semantic and pragmatic properties, and further discuss a new distinction between contrastive and coreferent uses of the additive fragments.

Table 2: Sample tokens of pronoun + additive adverb fragments from Frantext (after 1980).

	.	?	!	total
aussi 'too'	262	25	26	313
non plus 'either'	125	5	18	148
total	387	30	44	461

2.1 Some syntactic properties of the additive fragments

Our English fragments are mostly declaratives (72%), but some are interrogative ((5a), (8b)), exclamatory (8c) or imperative (3b).

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6 We also searched three French spoken corpora (CRFP, CFPP2000 and C-Oral-rom), which only returned 38 hits, probably due to their small size and their semi-formal register (interviews). Since they did not give any kind of example that was not also in Frantext, we do not report them here.

(8) a. *A: <u>We</u> missed you out here. B: Yeah, me too.* (COCA 2002 TV)

  b. *A: <u>I</u>'m beginning to like the guy. You too?* (COCA 1993 TV)

  c. *A: <u>Frankie's guys</u> are back! B: Them too!* (COCA 1991 MOV)

In French, the additive fragments are also mostly declaratives (83% with *aussi*, 84% with *non plus*), but some are interrogative ((4b), (9a)), exclamatory (9b) or imperative (9c).

(9) a. De toute façon j'ai   rien   envie de faire. À
      of any way I.CL have nothing desire to do. At
      part regarder la télé. Toi aussi?
      part watching the TV. You too?
      'Anyway, I don't want to do anything besides watching TV. You too?'
      (Frantext: Angot 2006)

  b. A: *Ça ne <u>me</u> fait rien,   mais alors*
      this NEG me.CL does nothing, but then
      rien   du tout.
      nothing at all
      B: *Moi   non plus!*
      Me   neither!
      'This does doesn't affect me at all, really, not at all. -Me neither!'
      (Frantext: Manœuvre 1985)

  c. A: *Allez, à tantôt, sois   sage! B: Toi*
      Go,   to soon, be.IMP good   you
      aussi   rétorquai-je,   ironique.
      too   answered-I   ironic
      'See you soon, be good! -You too, I answered, ironically.' (Frantext: Aventin 1988)

As shown by the preceding examples, we found that most fragments are used as independent utterances, unlike the examples cited in the theoretical literature (Depiante 2000; Johnson 2009; Merchant 2003). In English, more than 90% fragments are in the root clause, and only some are coordinated, as in (10a). In French also, most fragments are root (67% with *aussi*, 77% with *non plus*), while some are coordinate, and others subordinate (see Section 2.2 below). The coordination can be with (4a) or without an explicit coordinator (10b):

(10) a. *He's trying to teach <u>your brother</u> how to be a man, and you too.* (COCA 2010 MOV)

  b. *<u>Sa</u> <u>grande</u> <u>sœur</u> grimpait aux   arbres, lui aussi.*
      His big   sister climbed to-the trees, him too.
      'His older sister was climbing trees, him too.' (Frantext: Audin 2012)

In both languages, fragments often have an antecedent clause, mainly declarative ((10a), (8b), (9a), (10b), (11)). But the antecedent can also be a questioning declarative, with an implicit positive answer (11) (Abeillé et al. 2014a), or an imperative clause (3b), (9c).[7]

(11)   *Vous êtes éco-féministe? Moi aussi.*
         'You are ecofeminist? Me too.' (Frantext: Eaubonne 1980)

The fragment is often in another sentence, separated from its antecedent and sometimes in another dialog turn (see (8b), (9c)). When the preceding clause is complex, the antecedent may be the entire clause, or just its embedded clause. In (5a), the meaning can be 'did Superman bring you home?' or 'do you think Superman brought you home?'. But in (12), the fragment only means *moi aussi je regrette Saugues* ('I too regret Saugues'), and not *moi aussi je devine que je regrette Saugues* ('I too guess that I regret Saugues').

(12)   *Je devine que <u>tu</u> regrettes Saugues. Moi aussi d'un certain côté …*
         'I guess that you regret Saugues. Me too in a certain way.' (Frantext: Sabatier 1980)

Most of the time the pronominal remnant has a pronominal correlate in the antecedent clause. But the correlate can also be nominal as in (10a,10b). In (9c), the correlate is implicit: it is the addressee of the imperative clause. When it is explicit, it is usually a matrix subject (85% with *aussi* 'too', 84% with *non plus* 'either'), but it can also be an embedded subject (see (13a), (12)), an object ((9b)), or an embedded object ((10a), (13b)):

(13) a. | *Je* | *voudrais* | *surtout* | *qu'* | *<u>elle</u>* | *soit* | *heureuse.* |
         |------|-----------|-----------|-------|---------------|--------|-------------|
         | I.CL | like.COND | above.all | that | she.CL | be.SUBJ | happy.FSG |

Et	*toi*	*aussi,*	*tant*	*qu'*	*à*	*faire.*
And	you	too,	as	that	to	do

         'I would like above all that she be happy. And you too, for that matter.' (Frantext: Ormesson 1987)

      b. | … *elle* | *a* | *toujours* | *été* | *souple,* | *c'* | *est* | *ce* | *qui* |
         |----------|-----|-----------|------|-----------|------|-------|------|-------|
         | She.CL | has | always | been | flexible, | it | is | this | that |

<u>la</u>	*maintient*	*et*	*moi*	*aussi.*				
her.CL	maintains	and	me	too				

         'She's always been flexible, this is what keeps her going, and me too.' (Frantext: Akerman 2013)

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7 The term 'questioning declarative' is used to disentangle the speech act (question) and the clause type (declarative) (see Abeillé et al. 2014a). It has also been argued by Beyssade and Marandin (2006) that French "intonation questions" are declarative clauses and not interrogative clauses.

In (13a), the meaning of the fragment is not 'You too would like that she be happy', but 'I would like that you too be happy'. (13b) means *c'est ce qui me maintient aussi* ('this is what keeps me too').

Like the English example in (8b), French allows agreement mismatch between antecedent and fragment (see Abeillé et al. 2014b) for mismatch in gapping. In a majority of French fragments (70% with *aussi* 'too', 63% with *non plus* 'neither'), we found person, number or gender mismatch. In (14a), the fragment means *je me suis mis à poil* ('I put.1SG myself naked'); in (14b), the fragment means *il est vraiment amoureux* ('he is really in love.MSG'):

(14)   a. <u>*Les*</u> <u>*acolytes*</u> *se sont mis à poil. Moi aussi.*
          the   accomplices REF are put at hair. Me too
          'The accomplices got naked. Me too.' (Frantext: Sartre 1983)

    b. *Cette fois,   <u>je</u>   suis vraiment amoureuse, lui   aussi.*
          this time,   I.CL am really lover.FSG   him too
          'This time, I am really in love, him too.' (Frantext: Prin 2005)

There can also be verb form mismatch. In (15), the antecedent is a declarative but the fragment is an order/advice speech act: 'you too (should) do your best to be safe', with a change in verb mood.

(15)   <u>*We will do our best to be safe, you too.*</u> (COCA 2012 BLOG)

A similar occurrence is observed in French:

(16)   a. *A: Ne   t'   en   prive   pas! Écris!   B: Alors, elle*
          NEG you.CL of-it.CL deprive.IMP not Write.IMP B: Then, her
          aussi!
          too!
          'Do not deprive yourself! Write! Her too, then!' (Frantext: Chaix 2005)

    b. <u>*Ses parents*</u> *étaient musiciens* […] *Vous aussi, peut-être ?*
          'His parents were musicians … You too maybe?' (Frantext: Garat 2006)

In (16a), the antecedent is a second person imperative (*écris* 'write'), while the fragment has a 3rd person pronoun, so that its verb requires a *que* + subjunctive (*Qu'elle écrive!* 'Have her write!'). In (16b), there is tense mismatch: the antecedent is in the past tense but the fragment must be interpreted in the present tense (*Vous aussi êtes musicienne peut-être?* 'You too are a musician maybe?').

2.2 Embedded fragments

Morgan (1989) observes that embedded fragment answers may be acceptable without a complementizer as in (17a). Extending this observation to fragments like

(17b), Wurmbrand (2017: 6) introduces the so-called Embedded Stripping Generalization: "stripping of embedded clauses is only possible when the embedded clause lacks a CP". In a similar manner, Johnson (2018: 519) points out that gapping and stripping do not occur in embedding environments with the presence of a complementizer, as in (17c).

(17)   a.   *A: What does Nixon want for breakfast? B: Kissinger says eggs.*
             (Morgan 1989)
        b.   *When I get asked who's the biggest diva on the set, I say you.*
             (Wurmbrand 2017)
        c.   *Smith left and everyone thought (*that) Jones too.* (Johnson 2018: 518)

Our corpus data yield examples where additive fragments occur in embedding environments:

(18)   a.   <u>*Everybody*</u>*'s got to renegotiate, and that means you too.* (COCA MOV
             1999)
        b.   *A:* <u>*I*</u>*'m probably just gonna get a beer. B: Yeah, so many choices. I think
             me too.* (MOV 2015)

The meaning of (18a) is 'that means you too have to renegotiate', and the meaning of (18b) is 'I think I'm gonna get a beer too'.

   French allows fragments in embedding environments in a more flexible way. French additive fragments can be embedded with (see (19a)) or without the complementizer *que* 'that' (see (19b)). (19a) contradicts Wurmbrand's generalization, and is different from *that*-less parenthetical uses in (19c):

(19)   a.   *C'est* <u>*un homme*</u> *qui adore ses enfants. Remarquez que moi aussi.*
             'He's a man who adores his children. Note that me too'. (Frantext:
             Aymé 2002)
        b.   *A:* <u>*Tu*</u>   *veux*   *me*   *croquer*   *mon*   *Prince?*   *B:*   *J'*
                  You.CL   want   me.CL   bite   my   Prince?   I.CL
                  te   *préviens*   *moi*   *aussi.*
                  you.CL   warn   me   too
             'You want to bite me my Prince? – I warn you me too.'
             (Frantext: Hanska 1981)
        c.   *C'est un homme qui adore ses enfants. Moi aussi, remarquez.*
             'He's a man who adores his children. Me too, note.'

The antecedent of the fragment in (19a) is a cleft sentence, but its meaning is that of a simple sentence *moi aussi j'adore mes enfants* ('I too adore my children'),

and not *c'est moi aussi qui adore mes enfants* ('it's me too who adores my children').[8]

2.3 Some semantic and pragmatic properties

Additive fragments have a propositional content, as shown by the possibility of a sentential adverb like *actually* and *now* in English (Hankamer and Sag 1976; Merchant 2003):

(20)   a.   <u>Abby</u> *speaks passable Dutch, and probably/possibly/fortunately Ben, too.* (Merchant 2003)

         b.   *It looks like <u>almost everyone</u> dislikes this idea and me too actually.* (COCA 2020 BLOG)

         c.   *it's got <u>you</u> completely stuck, and me too now.* (COCA 1990 FIC)

In French, the additive fragment can be modified by an evaluative (*malheureusement* 'unfortunately') or a modal adverb (*peut-être* 'maybe'), which takes a propositional argument:[9]

(21)   a.   <u>*Les deux jeunes personnes*</u> *faillirent mourir de peur. Malheureusement vous aussi.*
               'The two young persons almost died of fear. You too unfortunately.'
               (Frantext: Buron 1998)

         b.   *J'*   *ai*   *un*   *peu*   *de*   *temps devant*   *moi.*   *Et*
               I.CL have   a   little   of   time   ahead   me   And
               vous   *aussi,*   *peut-être?*
               you   too,   maybe?
               'I have some time before me. And you too maybe?' (Frantext: Ormesson 1987)

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8 Notice also the sloppy reading of the possessive (his/my children) as in other kinds of ellipsis (Hankamer and Sag 1976).

9 Since such French adverbs are not compatible with a verbal interrogative clause (i) (Abeillé et al. 2014a; Bonami and Godard 2008), this shows that the questioning fragment in (21b) is a questioning declarative and not an interrogative clause.

(i)   a.   *Vous aussi avez un peu de temps devant vous peut-être ?*
               'You too have a little time ahead of you maybe?'

         b.   #*Avez-*   *vous*   *aussi un*   *peu*   *de*   *temps devant vous peut-être?*
               Have   you.CL   too   a   little   of   time   ahead   you,   maybe?
               'Do you too have a little time ahead of you maybe?'

The propositional content of the fragment usually comes from the preceding clause, but it can also involve more than one preceding clause. Consider the following example:

(22) *Où   allait   -il?   A   Carcassonne.   Parfait.   Vous   aussi.*
      Where   went   he.CL?   To   Carcassonne.   Perfect.   You   too
      'Where was he going? To Carcasonne. Perfect. You too.' (Frantext: Buron 1998)

In (22), the meaning of the fragment is related not to the immediately preceding one, but to the one before it. Its resolution involves a tense mismatch and an ordering speech act, and has the meaning of *Vous aussi irez à Carcassonne.* ('You too will go to Carcassonne'), which must be computed ignoring the adjacent utterance *Parfait* 'Perfect'. The resolution thus needs to take into account the fragment answer (*A Carcassonne* 'To Carcassonne') as well as the preceding question (*Où allait-il?* 'Where was he going?'). The antecedent clause (*Il allait à Carcassonne.* 'He was going to Carcassonne') is not uttered as such and has to be reconstructed in order to interpret the additive fragment.

The corpus also yields other examples that require such a complex interpretation process with a change of illocutionary force. Observe the following data:

(23) a. *T'   aimes   ça,   l'   argent?   Moi   aussi.*
         You.CL   like   this,   the   money?   Me   too
         'You like money? Me too.' (Frantext: Beauchemin 1981)
      b. *Savez   -vous   pourquoi […]   ils   me   surnomment Doc?*
         Know   you.CL   why   they.CL   me.CL   nickname   Doc?
         Non.   Vous   aussi,   je   suppose?
         No   You   too,   I   suppose?
         'Do you know why they nickmane me Doc? No. You too, I suppose? '(Frantext: Navarre 1988)

In (23a), the antecedent is a questioning declarative (Abeillé et al. 2014a), but the fragment is interpreted as an asserting declarative (*J'aime ça, l'argent.* 'I love money'). Since declarative questions are biased, an implicit positive answer is assumed from the addressee before the fragment. In (23b) the antecedent is a polar question, which receives a negative answer. But the additive fragment is a questioning declarative, meaning *Vous aussi vous me surnommez Doc?* ('You too nickname me Doc?'), and not *Vous aussi, savez-vous pourquoi ils me surnomment Doc?* ('You too do you know why they nickname me Doc?'). The meaning of the

fragment is thus built only from the propositional core of the antecedent (*Ils me surnomment Doc.* 'They nickname me Doc').[10]

2.4 Contrastive versus coreferent use

In most of our English and French corpus examples, the remnant in the fragment introduces another individual who stands in contrast with the individual(s) denoted by the correlate. We call this the contrastive interpretation. But in some exclamatory cases, usually with turn changing, the remnant and the correlate are coindexed, as in (8c), which we repeat here:

(24)   a.   *A: <u>Frankie's guys</u> are back! B: Them too!* (COCA 1991 MOV)
        b.   *A: <u>John's</u> been drinking. B: JOHN too!*

The pronoun *them* refers to Frankie's guys, and *too* presupposes that other individuals, previously mentioned or implicit in the context, are back. This kind of fragment cannot be coordinated and expresses some kind of surprisal. We take this to be the coreferent use of the additive fragment.[11] This coreferent use is also possible for NP remnants, with turn changing and exclamation (24b). The same use is attested in French: in (25), *lui* 'him' refers to the same person as the correlate ('him too is homosexual'), and *aussi* ('too') presupposes the existence of other homosexuals in the context:

(25)   *A: j'ai devant moi <u>un</u> <u>ancien</u> <u>sociétaire</u> de la Comédie-Française*
        I.have before me a former member of the Comédie-Française,
        […], homosexuel notoire quoique fort discret. B: Lui aussi!
        homosexual notorious while quite discreet. Him too
        'I have in front of me a former member of the Comédie française, notorious
        homosexual while very discreet. -Him too!' (Frantext: Dorin 1984)

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10 Another point can be made in case of an embedded antecedent. Like VPE as in (a) but unlike sluicing (AnderBois 2014), our fragments can have as their antecedent a not at-issue proposition. In (b), the antecedent predicate is inside a not-at-issue adjunct (*puisque tu n'y étais pas* 'since you were not there') and the fragment means *toi non plus n'y étais pas* ('you were not there, either').

(i)   a.   *Mary, who doesn't help her sister, told Jane to, instead* (Anderbois 2014)
        b. A: *Qu' en sais -tu, puisque <u>tu</u> n' y étais pas?*
               What of.it.CL know you.CL? since you.CL NEG there.CL were not?
          B: *Toi non plus, alors que prends -tu sa défense?*
              You neither then what take you.CL his defence?
            'What do you know about that since you were not there? -You neither, so why do you
            take his side?' (Frantext: Garat 2010)

11 Although it has not been observed before, we suppose it is possible with negative stripping too, with turn changing and exclamation: *A: John has been drinking B: Not HIM!* (where 'him' refers to John).

3 Some issues for syntactic reconstruction

A syntactic reconstruction analysis is challenged by the existence of mismatches between the antecedent clause and the fragment. In Section 2, we have seen mismatches in agreement, mood and tense. There are also other types of mismatches, as well as examples where the antecedent is inside an island configuration or without any verbal antecedent.

3.1 Case and preposition mismatch

A derivational analysis is challenged by case assignment in English. Although a nominative pronoun is required for the subject of a verbal clause, it is not possible in our fragments. Conversely, although an accusative pronoun is not possible for the subject in a finite verbal clause, it is obligatory in our fragments. Additive fragments take an accusative pronoun, like fragment answers (26b) and negative stripping (26c) (Ginzburg and Sag 2000; Kim 2021):

(26)　a.　*A: I'm ready for my dessert right now. B: Me/ ??I too.* (COCA 2019 MOV)
　　　b.　*A: Who's getting hungry? B: Me.* (COCA 2019 MOV)
　　　c.　*Some teams get paid a little bit, but not us.* (COCA 2018 FIC)

In French, the divide is between the weak clitic forms (*je, me* 'I, me', *tu, te* 'you', *il, le* 'he, him') and the strong forms (*moi* 'me', *toi* 'you', *lui* 'him'). The strong form cannot be in bare subject position, but is required in case of modification (Miller and Sag 1997):

(27)　a.　*Elle était ravie et moi/ *je aussi.*
　　　　　'She was delighted and I. STRX/*CL too.'
　　　b.　*J'/*Moi étais ravi aussi.*
　　　　　I.CL/*STRX was delighted.MSG
　　　c.　**Je/?Moi aussi étais ravi.*
　　　　　I.*CL/STRX was delighted.MSG

When the remnant corresponds to a complement, a (preverbal) weak form is also required in a verbal clause, and a strong form is not acceptable in postverbal position:

(28)　a.　*Cela　l'inquiétait,　et　moi/*me　aussi　par　sympathie.*
　　　　　This　her.CL.worried, and　me.STRX/*.CL too　by　sympathy
　　　　　'This was worrying her, and me too by sympathy.' (Frantext: Chandernagor 1981)

   b. *Cela   m'inquiétait   aussi/ *Cela   inquiétait moi   aussi.*
     This   me.cL.worried too/ *This   worried   me.sTRX too
     'This worried me too.'

A syntactic reconstruction approach is also challenged by preposition omission in French. According to Depiante (2000) and Merchant (2001), preposition omission in ellipsis comes from preposition stranding, and non preposition stranding languages like French, should not allow it. For French sluicing, Rodrigues et al. (2009) and Smirnova and Abeillé (2021) identified examples without a preposition. In our fragments, the preposition can be omitted, as in (9b), repeated here, while it is obligatory in a verbal clause, with a strong form pronoun as in (29b). As a fragment, *A moi non plus* 'To me either' would be possible too, but the preposition is not obligatory, unlike in the verbal clause:

(29)   a. *A: Ça ne   <u>me</u>   fait rien,   mais alors rien   du tout.*
           this NEG me.cL does nothing, but   then nothing at all.
           B: Moi non plus!
               Me   neither!
         'This doesn't affect me at all, really, not at all. -Me neither!'
         (Frantext: Manoeuvre 1985)
    b. *ça ne fait rien *(à) moi non plus.*
       'It does not do anything to me either.'
    c. **Moi non plus, ça ne fait rien à .*
       'Me too, it does not do anything to …'

3.2 Antecedent in island configurations

A derivational analysis with deletion under identity typically assumes focus fronting (Depiante 2000; Merchant 2003), especially when the remnant is not the subject as in (5a), which we repeat in (30a); otherwise, the putative clausal source is not available with the target word order (30b), assuming deletion of continuous strings only:

(30)   a. *I think Superman brought <u>me</u> home. You too?* (COCA 1994 TV)
    b. **~~Superman brought home~~ you too?/Superman brought you home too?*
    c. [_{FocP} *You* [_{IP} *~~Superman brought ____ home~~*]] *too?*

But when the correlate is an embedded subject as in (13a), repeated in (31a), its movement is not possible:

(31) a. *Je   voudrais surtout   qu' <u>elle</u> soit   heureuse. Et   toi*
      I.CL like.COND above.all that she.CL be.SBJV happy.FSG And you
      aussi, tant   qu'   à   faire.
      too,   as   that   to   do
      'I would like above all that she be happy. And you too, for that matter.'
      (Frantext: Ormesson 1987)
   b. **Et toi aussi, je voudrais que - sois heureuse.* (putative source for (33a))
      And you too, I want that be happy

Example (13b), repeated in (32a), has the correlate inside a relative clause, which is an island for focus fronting:

(32) a. *[…]c'   est   ce   qui   <u>la</u>   maintient   et   moi   aussi.*
      this   is   this that her.CL maintains and   me   too
      'This is what keeps her going, and me too.' (Frantext: Akerman 2013)
   b. **et moi aussi, c'est ce qui - maintient.* (putative source for 32a)
      and me too, this is this that keeps going
   c. *et c'est ce qui me maintient aussi.* (equivalent of 34a)
      'and this is what keeps me going too'

As given in (32b), the putative clausal source is unacceptable. This implies that it is not viable to construct putative sources of the fragment in question, based on a simple move-and-delete operation with its verbal antecedent.[12]

3.3 Polarity mismatch

Additive adverbs are sensitive to the polarity of the context clause: *too* or *aussi* usually occurs in a positive proposition, while *either* or *non plus* 'neither' presupposes a negative one (with *pas* 'not', *rien* 'nothing', *jamais* 'never', *personne* 'no one', etc. in French, see Godard 2004; Kim and Sag 2002). A clausal reconstruction analysis is challenged by polarity mismatch. Sometimes the negation is implicit as in (33a), and *either* would not be possible in a verbal clause:

---

12 In English, Depiante (2000) and Merchant (2005) argue that negative stripping is blocked in island configurations, contrary to sluicing. However, as noted by Kim (2021), there are attested examples that show island insensitivity:

(i)   a. **The news that John has resigned is shocking, but not Mary.* (Merchant 2005)
   b. *I'm known around here as a fast worker, but not this fast.* (COCA 1992 FIC) (cited by Kim 2021)

(33)   a.   *A: <u>We</u> reserve the right to delete any comment for any reason at anytime. B: Me either.* (COCA 2012 WEB)

      b.   *I too/*either reserve the right to delete any comment for any reason at any time.*

The same is observed in French in (34a) with *hors de question* ('out of the question'), and *non plus* 'neither' would be difficult in a full verbal clause:

(34)   a.   *A: Genetschka, il est hors de   question   que <u>tu</u>   allumes le*
            Genetschka it is   out   of   question   that you.CL light.SBJV the
            poêle,   les   bûches sont trop lourdes![…] B: Volenka, toi
            stove   the   logs   are too heavy.F.PL   Volenka you
            non plus!
            neither !
          'Genetschka, it's out of the question that you light the stove, the logs are too heavy. -Volenka, you neither!' (Frantext: Schreiber 1996)

      b.   #*Il est hors de question que tu allumes le poêle non plus.*
         'It is out of the question that you light the stove neither'.

Although *too* is usually used with a positive antecedent, a negative one is also possible. For instance, in (35a), *too* has scope over the negation, which shows that the adverb adjoins to the pronoun. The putative source is thus not a clausal one like (35b), but would be something like (35c).

(35)   a.   *A: <u>I</u> can't deal with you right now. B: Me too.* (COCA 2001 MOV)

      b.   (≠) *I can't deal with you right now, too.*

      c.   (=) *I too can't deal with you right now.*

A further complication arises from examples like (36a):

(36)   a.   *A: Noise? <u>I</u> don't hear anything. B: Me neither.* (COCA 2013 MOV) *(I don't hear anything either/*neither.)*

      b.   *Neither do I hear anything./*I neither don't hear anything.*

While *either* would be required in a negative clause, *neither* is also well attested in our negative fragments (see Table 1).

    If we keep the same polarity as that of the antecedent clause, the adverb has to be (sentence final) *either*. With *neither*, a positive auxiliary with subject inversion would be required. As given in the parentheses, the putative clausal sources are unacceptable. This again means that the simple syntactic identity with its potential antecedent is not enough to build putative sources of the fragment in question.

3.4 Lack of a verbal antecedent

The putative source is typically linked to a verbal antecedent, but a nominal antecedent is also possible. Consider the following corpus examples:

(37)   a. *Dure journée. Toi aussi?*
                 'Hard day. You too?' (Frantext: Bouillier 2018)
         b. *A: Bon appétit, Madame Leblanc. B: Vous aussi, Docteur …*
                 'Bon appétit, Mrs Leblanc. – You too, Doctor.' (Frantext: Winkler
                 1998)

Example (37a) means 'Did you have a hard day too?', and (37b) 'I wish you a good appetite too!'.[13]

   The example in (38) is another (playful) case challenging identity-based syntactic reconstruction, since the antecedent is a song in another language (English).

(38)   *Un transistor hurle 'I dont know I don't know I dont know', et moi non*
         plus […]
         'A transistor screams "I don't know, I don't know, I don't know", and me
         neither.' (Frantext: Grangaud 1994)

Exophoric uses of the fragment are supposed to be impossible according to Hankamer and Sag (1976), as illustrated by the following:

(38)   *[Mary is reading El Quijote] John says: #But not Hamlet?*

We nevertheless found examples with the situation context serving as the nonverbal antecedent, both for English and French, as illustrated by the following:[14]

(39)   a. *At the Riverside Caf, Kyle orders something that sounds like chicken-*
                fry-stick and I nod and say, "Me too." (COCA 2019 FIC)
         b. *il   entre   dans   le   dispensaire… dont   je sors, porteur d' une*
                he enters in   the dispensary   of.which I.CL leave carrier of an
                radiographie… Ah! Vous aussi?
                x-ray   Ah You too?
                'he enters the dispensary […] which I'm leaving carrying an x-ray: Ah!
                you too?' (Frantext: Lucot 2001)

---

13 A similar fact is observed for VP ellipsis (*John is a smoker and when he does …*). See Miller and Hemforth (2014) for further discussion.
14 See Winterstein and Zeevat (2012) for exophoric use of *too* in verbal clauses. As pointed out by a reviewer, there is a linguistic antecedent in this example, but the point is that it is not provided to the reader, who nevertheless understands the meaning of the remnant.

The example (40a) means 'I too will have the same thing'; (40b) means 'you too are having an X-ray?'. These examples show that it is hard to assess the possibility of such uses based on introspection, and that corpus data are needed.[15] This kind of example is interpreted with respect to a salient situation and a salient protagonist, again questioning an approach based on syntactic reconstruction from a preceding verbal clause.

In brief, our corpus data have provided arguments against a syntactic reconstruction approach (proform mismatch, preposition omission in French, verb mismatch, polarity mismatch) and against movement-and-deletion analyses (island violation, non-verbal antecedents, exophoric uses). This gives a strong motivation to develop a direct interpreation (DI) apporach we set for in the following.

4 A direct interpretation approach

Given the challenges facing a syntactic reconstruction approach, we propose a direct interpretation (DI) approach couched upon a construction-based HPSG (Ginzburg and Sag 2000; Sag 1997). Our corpus data have shown that most of our fragments are roots, in both languages, sometimes with turn changing, and that embedding is possible. Unlike previous analyses such as Depiante (2000), Merchant (2003), and Johnson (2018), our analysis resorts to no sentential sources for the resolution of fragments.

4.1 Declarative fragment constructions

Ginzburg and Sag (2000) develop a comprehensive DI approach for fragments. Their analysis takes fragments as a special type of head-phrase and introduces the so-called headed-fragment phrase. This phrase comprises a non-verbal phrase as its head, licensing fragment answers like the following:[16]

(41)   a.   *A: What do you like? B: Bagels.*
        b.   *A: Who is leaving? B: Kim./Me.*

---

15 The exophoric use is observed in VP ellipsis (Miller and Pullum 2014) as well as in negative stripping:

(i)   *Dawa was more than happy to let my friends use our shower tent but when he saw the other guy he looked at me and said "Not HIM!"* (COCA 2019 WEB)

16 This fragment comes in two varieties: declarative-fragment for short answers, and interrogative-fragment for short questions and sluices (see also Ginzburg and Sag 2000; Nykiel and Kim 2021).

Extending their analysis, we define additive fragments as another independent type of fragments, as represented in the following hierarchy:

(42)   An inheritance hierarchy of fragment constructions:
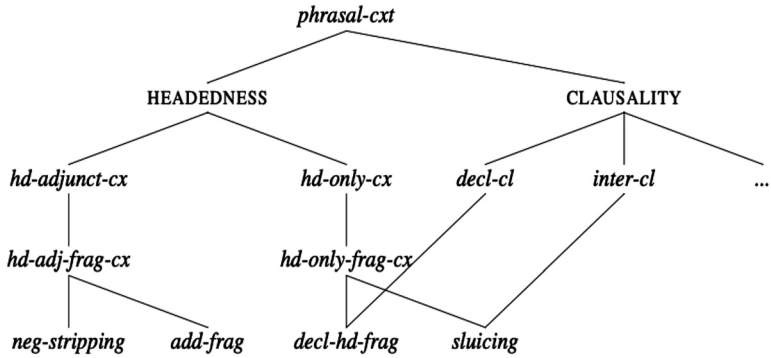
As seen from the hierarchy, in addition to the head-only-fragment (*hd-only-frag-cx*) licensing fragments answers and sluicing, we postulate the head-adjunct-fragment (*hd-adj-frag-cx*) that encompasses both negative stripping like *not me* and additive fragments.[17]

Ginzburg and Sag (2000) define declarative-fragments as verbal root clauses, with a non-verbal head (the remnant). The content of the fragment is a proposition (from the context) which takes as argument the content of the non-verbal remnant. Before we spell out our analysis in detail, let us further consider the head- fragment construction. As noted, within this DI view set forth by Ginzburg and Sag (2000) and Ginzburg (2012), fragments are the sole daughter of an S-node, licensed by the following construction (see also Kim 2015, Kim and Abeillé 2019):

(43)   Head-Only Fragment Construction:
          Any category can be projected into a sentential utterance (with a clausal meaning reconstructed from this context).

This can be formalized in the HPSG feature system as following, with FEC (focus establishing constituent) associated with the correlate of the remnant:

---

17 In Ginzburg and Sag (2000), clause-types are defined to have a different semantic content, inheriting from a general type *message*:

(i)   a.   clause → [SEM *message*]
        b.   decl-cl → [SEM *proposition*]
        c.   inter-cl → [SEM *question*]
        d.   exclam-cl → [SEM *fact*]

(44)   Head-Only Fragment Construction (↑*hd-only-cx*):

$$
\begin{bmatrix}
\textit{hd-only-frag-cx} \\
\text{SYN } \mathbf{S} \\
\text{SEM } \textit{message} \\
\text{CNXT } \begin{bmatrix} \text{FEC} \left\{ \begin{bmatrix} \text{SYN } [\text{CAT } \boxed{1}] \\ \text{SEM } [\text{IND } \boxed{2}] \end{bmatrix} \right\} \end{bmatrix}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{SYN } [\text{CAT } \boxed{1}[\textit{nonverbal}]] \\
\text{SEM } [\text{IND } \boxed{2}]
\end{bmatrix}
$$

The construction basically allows any non-verbal expression to function as a sentential utterance denoting a message, as long as this expression has a salient correlate (with the same category $\boxed{1}$ and the same index $\boxed{2}$). This salient information is evoked by the surrounding context as marked by the feature attribute CNTX (context) which comprises attributes like FEC (focus establishing constituent) for the correlate, QUD (questions under discussion) for the antecedent, and presuppositions (PRESP). This simple syntax, following the philosophy of Simpler Syntax Hypothesis (Culicover and Jackendoff 2005; Ginzburg and Sag 2000), allows a fragment to serve as the sole daughter of an S-node. For instance, the fragment answer *Kim* in (41b), inheriting from declarative-clause and *hd-only-frag-cx*, will have the following structure:

(45)

$$
\begin{array}{c}
\mathbf{S} \\
\begin{bmatrix}
\textit{hd-only-frag-cx} \\
\text{SYN } \begin{bmatrix} \text{CAT } & \mathbf{S} \end{bmatrix} \\
\text{SEM } \begin{bmatrix} \textit{proposition} \\ \textit{leave}(k) \end{bmatrix} \\
\text{CNXT } \begin{bmatrix} \text{MAX-QUD } \lambda_x \begin{bmatrix} \textit{leave}(x) \end{bmatrix} \\ \text{FEC} \left\{ \begin{bmatrix} \text{SYN} \mid \text{CAT } \boxed{1}\text{NP} \\ \text{SEM } \begin{bmatrix} \text{IND} & x \end{bmatrix} \end{bmatrix} \right\} \end{bmatrix}
\end{bmatrix} \\
\mid \\
\mathbf{NP} \\
\begin{bmatrix}
\text{SYN } \begin{bmatrix} \text{CAT } & \boxed{1} \end{bmatrix} \\
\text{SEM } \begin{bmatrix} \text{IND } & k \end{bmatrix}
\end{bmatrix} \\
\triangle \\
\text{Kim.}
\end{array}
$$

The preceding *wh*-question provides a MAX-QUD (maximal question-under-discussion) with a variable, and the fragment supplies a value for this variable. This fragment

answer is thus a well-formed stand-alone clause licensed by the Head-Fragment Construction that requires the CAT value of the fragment to be matched to that of the correlate FEC. This ensures connectivity and syntactic parallelism between correlate and remnant.

4.2 The additive fragment construction

As suggested, we consider additive fragments as another type of fragments, with an obligatory adjunct. We extend Ginzburg and Sag's definition by relaxing the semantic identity between the correlate and the remnant: they can be coindexed, as in (exclamatory) coreferent additive fragments but they are not in their (more common) non-coreferent contrastive use.

(46) a. *A: John left. B: JOHN too!* (coreferent use)
      b. *A: John left. B: Kim too.* (contrastive use)

As noted earlier, in non-elliptical environments, the additive usages of *too* and *either* typically appear in the preverbal or in the sentence final position:

(47) a. *Kim too wants to explore Europe.*
      b. *Kim wants to explore Europe, too.*
      c. *In Europe too, they have oil.*

This means that *too* either modifies an NP or a sentence, with the presupposition that there is another individual or a situation other than the one denoted by the modified NP or sentence. For instance, (47a) presupposes that there is an individual other than Kim who wants to explore Europe, and (47c) that there is another continent with oil. We limit ourselves to the NP-modifying use of the additive adverbs. Reflecting these, we could have the following lexical specifications for too.

$$
(48) \quad
\begin{bmatrix}
add\text{-}adv \\
\text{FORM } \langle \text{too} \rangle \\
\text{SYN } \left[\text{CAT Adv} \left[\text{MOD NP}_j \right] \right] \\
\text{SEM } P(j) \\
\text{CNXT } \left[\text{PRESP } \begin{bmatrix} fact \\ P(i) \\ contrast\text{-}rel(i,j) \end{bmatrix} \right]
\end{bmatrix}
$$

The lexical specification means that additive particles are adjuncts modifying an NP referring to an individual *j*. Its contextual information presupposes that the

referent of NP is in a contrast relation with another contextually salient individual (i) already introduced in the context, and further that the parallel situation with this individual as an argument is true or a fact.

A distinctive property of additive *too* and *aussi*, as noted earlier, is that it is obligatory in elliptical environments (see Amsili et al. 2016 for experimental evidence):
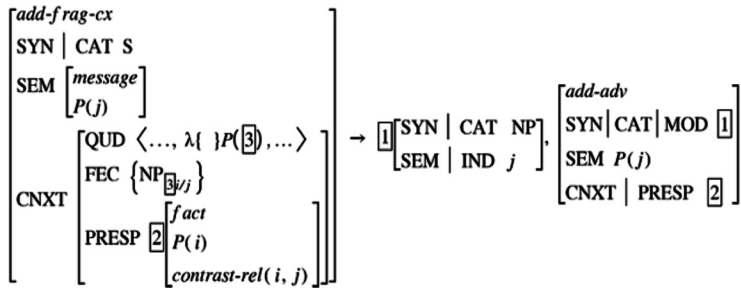
(49) a. *A: I hate mushrooms. B: Me *(too).*
      b. *A: Je déteste les champignons. B: Moi *(aussi).*

This means that the fragment with an additive particle differs from typical fragment answers. In order to address this, we posit the following construction, sharing some properties with the Head-Only-Fragment Construction:

(50) Additive Fragment Construction: (↑*head-adj-cx*):
      The additive adverb combines with a head NP, forming a head-adjunct-fragment construction with a sentential meaning that replaces the NP referent in a proposition evoked by a linguistic or discourse antecedent, and that presupposes the existence of another contrasting individual in the context.

In its contrastive use, the additive fragment construction identifies the individual presupposed by the additive adverb with the correlate of the remnant. This could be represented in a more formal way:[18]

(51) Additive Fragment Construction: (↑*hd-adj-frag-cx*):

$$
\begin{bmatrix}
\textit{add-frag-cx} \\
\text{SYN} \mid \text{CAT} \ \text{S} \\
\text{SEM} \begin{bmatrix} \textit{message} \\ P(j) \end{bmatrix} \\
\text{CNXT} \begin{bmatrix} \text{QUD} \ \langle \ldots, \lambda\{\ \}P(\boxed{3}), \ldots \rangle \\ \text{FEC} \ \{\text{NP}_{\boxed{3}/j}\} \\ \text{PRESP} \ \boxed{2} \begin{bmatrix} \textit{fact} \\ P(i) \\ \textit{contrast-rel}(i, j) \end{bmatrix} \end{bmatrix}
\end{bmatrix}
\rightarrow
\boxed{1}\begin{bmatrix} \text{SYN} \mid \text{CAT} \ \text{NP} \\ \text{SEM} \mid \text{IND} \ j \end{bmatrix},
\begin{bmatrix}
\textit{add-adv} \\
\text{SYN} \mid \text{CAT} \mid \text{MOD} \ \boxed{1} \\
\text{SEM} \ P(j) \\
\text{CNXT} \mid \text{PRESP} \ \boxed{2}
\end{bmatrix}
$$

The construction licenses a head NP to combine with the additive particle *too*, projecting into a sentential utterance, with a meaning of type *message*, and replacing the content of the correlate (FEC) by that of the remnant (NPj). Note

---

18 The notation λ{ } for a polar question is borrowed from Ginzburg and Sag (2000: 114).

that unlike our corpus study, nothing in our analysis constrains the remnant to be a pronoun: it can be a proper name or an NP with a common noun (e.g., *Paul too* or *my friend too*). The constructional constraint also carries a presupposition such that the same propositional content (P(i)) is true for another individual (i) standing in a contrast relation with the remnant (j). This presupposition is evoked from the additive particle *too*. Notice that the indices of the (NP) remnant (j) and that of the (FEC) correlate (3) can be the same (in coreferent use) or not (in contrastive use). In the latter case, the correlate is identified to the presupposed element (i). The construction specified here thus encompasses both the contrastive as well as coreferent uses of the additive fragments. This distinguishes additive fragments from head-fragments, which identify the remnant with its correlate (see (44) above).[19]

Note that the remnant does not have to share its syntactic features with its correlate. In English, the pronoun fragment needs to be accusative even though the associated correlate may be nominative (see Section 3.1 above). The sentential analysis with move-and-delete operations thus requires an additional mechanism for this case mismatch. In contrast, the DI approach has no such issue since it refers to no sentential source. The licensed fragment is linked to the variable evoked by the antecedent *wh*-question. The only assumption that this DI analysis needs is to assume that an NP gets accusative case in English if not licensed by a finite V(P), which is independently required in non-finite environments (e.g., *with me leaving, …*). In French, strong forms of the pronouns are required, since weak forms need a verb to attach to.[20]

---

19 Different from English, languages like Romanian require the fragment's case to the same as that of the correlate (p.c. with Gabriela Bîlbîie):

(i) a. A: *Am   mâncat   deja.*   B: *Și   eu/*mine.*
          AUX.1 eaten   already   too I/*me
          'A: I have already eaten. B: Me too.'
     b. A: *Asta   mă   menervează.* B: *Și   pe   mine/*eu.*
          this   CL.ACC.1SG   bothers   too DOM me/*I
          'A: This bothers me. B: Me too.'

In (ia), the fragment cannot be the accusative form of *mine*, but in (ib) it must be accusative, matching with the correlate. To ensure such case connectivity between the fragment and its correlate, the construction could be specified to structure-share the CAT value of the remnant NP with that of the FEC. See Ginzburg and Sag (2000) for a similar direction.

20 Miller and Sag (1997) and Miller (2021) analyse these as verbal affixes.

A simplified representation for the fragment in (49a) above is thus the following:

(52)   An example of a contrastive use (with subject correlate)
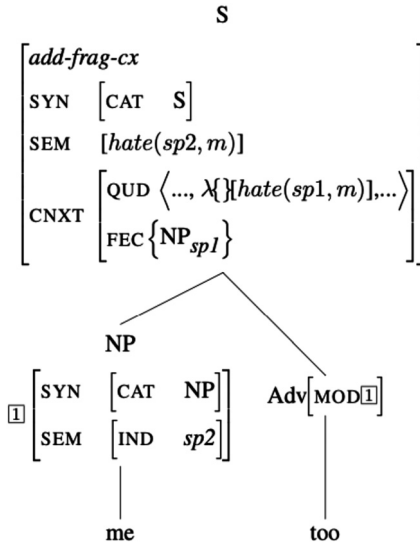
The representation tells us that *too* modifies the pronoun *me*, forming a head-adjunct-fragment. This fragment refers to the proposition of the antecedent clause linked to the first speaker (*sp1*). The pronoun *me* then replaces this value, yielding the proper meaning resolution such that the second speaker (*sp2, me*) also hates mushroom.
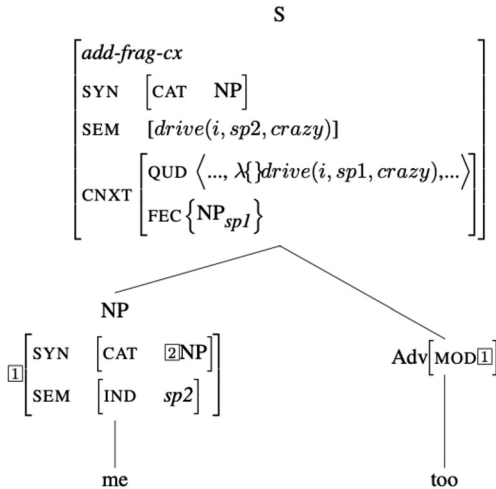
This analysis allows the head NP of the fragment to be a non-subject, as repeated here. As noted, *too* cannot directly modify *me* in the putative source.

(53)   a.   *A: It is driving me crazy. B: Me too.*
        b.   **It is driving me too crazy./It is driving me crazy too.*

In the present analysis, any proposition will serve as an antecedent, so the remnant can match an object correlate, no syntactic reconstruction is needed. This is illustrated by the following:

(54)   An example of a contrastive use (with object correlate)
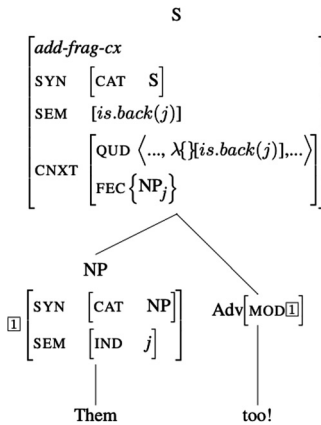
$$S$$

$$
\begin{bmatrix}
\textit{add-frag-cx} \\
\text{SYN} \quad \begin{bmatrix} \text{CAT} & \text{NP} \end{bmatrix} \\
\text{SEM} \quad [drive(i, sp2, crazy)] \\
\text{CNXT} \quad \begin{bmatrix} \text{QUD} \; \langle ..., \lambda\{\}drive(i, sp1, crazy), ... \rangle \\ \text{FEC}\{\text{NP}_{sp1}\} \end{bmatrix}
\end{bmatrix}
$$

$$\text{NP}$$

$$
{}_{\boxed{1}}\begin{bmatrix}
\text{SYN} & \begin{bmatrix} \text{CAT} & \boxed{2}\text{NP} \end{bmatrix} \\
\text{SEM} & \begin{bmatrix} \text{IND} & sp2 \end{bmatrix}
\end{bmatrix}
\qquad\qquad \text{Adv}\begin{bmatrix}\text{MOD}\boxed{1}\end{bmatrix}
$$

me	too

Different from the situation in (52), the pronoun *me* here is linked not to the subject, but to the object which is in a contrast-relation with the pronoun itself. The proper meaning resolution is thus not that the second speaker drives me crazy but that the individual referring to *it* drives the speaker crazy, as given in the semantics of the NSU.

Let us now turn to the coreferent use of additive fragments. In this case, the referent of the (NP) remnant and that of the (FEC) correlate are the same, and the presupposition provided by the adverb is about another individual (contrasting with the remnant/correlate).

(55)   a.   *A: Frankie's guys$_i$. B: Them$_i$ too!*
          b.   *A: Paul$_i$ est malade. B: ?C'est fou que lui$_i$ aussi!*
                 'Paul is sick. It's incredible that him too!'

We did not find such examples in coordination nor in embedding context, although they do not seem impossible (55b). The tendency for the coreferent additive fragment to be root may be due to its emotive use (see Ginzburg 2019 on exclamative sluices, which must be root too).

(56)　　　An example of a coreferent use

$$
\begin{array}{c}
\mathrm{S} \\[4pt]
\begin{bmatrix}
\textit{add-frag-cx} \\
\text{SYN} \quad \begin{bmatrix} \text{CAT} & \text{S} \end{bmatrix} \\
\text{SEM} \quad [\textit{is.back}(j)] \\
\text{CNXT} \quad \begin{bmatrix} \text{QUD} \ \langle ..., \lambda\{\}[\textit{is.back}(j)],...\rangle \\ \text{FEC} \{\text{NP}_j\} \end{bmatrix}
\end{bmatrix}
\end{array}
$$

NP

$$
\boxed{1}\begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{CAT} & \text{NP} \end{bmatrix} \\ \text{SEM} & \begin{bmatrix} \text{IND} & j \end{bmatrix} \end{bmatrix} \qquad \text{Adv}\begin{bmatrix} \text{MOD}\boxed{1} \end{bmatrix}
$$

Them　　　　　　　too!

4.3 Accounting for further properties

A comprehensive formal analysis of all the properties uncovered in our corpus data lies beyond the scope of this paper. This paper deals with only part of these properties. Regarding embedding, Ginzburg and Sag (2000) use the IC (Independent Clause) feature for fragments to block fragments in embedding environments. However, the present analysis does not specify additive fragments as [IC +] since they can be embedded in French, and in English without *that*. As seen before (Section 2.2), additive fragments are mainly used as independent utterances, but they may also be embedded without the complementizer *that*, in their contrastive use ((18a), (18b)).

(57)　　　*A: I'm probably just gonna get a beer. B: I think me too.*

In French, contrastive additive fragments can be embedded (19a), like interrogative fragments and unlike short answers (58b):

(58)　　　a.　　*Je pars et (je pense que) Marie aussi.*
　　　　　　　　　'I leave and (I think that) Marie too.'
　　　　　b.　　*A: Qui part? B: (*Je pense que) Marie.*
　　　　　　　　　'Who leaves? (* I think that) Marie.'

We have noted that there could be a mismatch in the polarity value, with the example in Section 3.3:

(59)　　　*I wasn't interested in boys. Me too.* (COCA 2007 SPOK)

The meaning of the fragment here is not (60a), but (60b) or (60c).

(60)   a.   *I too was interested in boys.*
        b.   *I too wasn't interested in boys.*
        c.   *I wasn't interested in boys, either.*

The syntax-based reconstruction cannot give us a reasonable clausal source. The present analysis can offer a simple analysis. For instance, the antecedent clause here in (59) would have a meaning like (61a). The fragment *me too* will then add an additional value for the first argument, as given in (61b):

(61)   a.   *At the Riverside Caf, Kyle orders something that sounds like chicken-fry-stick and I nod and say, "Me too."* (COCA 2019 FIC)
        b.   *I want to order the same thing too./I too want to order the same thing./ Let me have the same thing.* ….

The correlate here is provided by the context; there is no exact syntax source. The possible sources of (61a) are quite varied as given in (61b). In the present approach, we just replace the corresponding value of the proposition in parallelism. *Me too*: look for the correlate (*Kyle*) corresponding to me in the context, replace this value from the given proposition (and add this proposition as a fact/presupposition).[21]

5 Conclusion

On the basis of a large set of naturally occurring examples in French and English, we showed that additive fragments exhibit a higher flexibility in interpretation than is usually assumed, and suggested a direct interpretation approach inspired by Ginzburg and Sag (2000). In particular, we discussed key examples with no overt correlate and even with no linguistic antecedent (exphoric uses). Such data challenge previous approaches based on coordination and/or syntactic reconstruction (Depiante 2000; Merchant 2003; Wurmbrand 2017). As pointed out for other types of ellipsis (Anand et al. 2021; Bîlbîie and de la Fuente 2019; Bîlbîie et al. 2021; Kim and Abeillé 2019; Miller and Pullum 2014; Smirnova and Abeillé 2021), the data confirm the need for linguistic theories to rely on a solid empirical basis. We also distinguish between the contrastive use, where the fragment introduces a new individual, and the coreferent use, where the fragment repeats a previously

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21 This semantic flexibility may explain why *me too* became a popular phrase for an anti-sexual harassment campaign on social media in 2006: it is understandable without an explicit antecedent. See Miller and Pullum (2014) for similar observations about the sexual connotation of attested exophoric uses of VPE (*Does she or does not she?*).

mentioned individual. In the latter case, the fragment is typically a root exclamative utterance. We suggested that the mandatory additive adverb in ellipsis environments is introduced as a constructional expression with its own semantic and pragmatic (e.g., presuppositional) constraints. We sketched a fragment-based HPSG analysis based on a hierarchy of construction types: it enables additive fragments to share some properties with other fragments (negative stripping, short answers and sluices) while having their own constructional properties.

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