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Abstract. This chapter discusses the interaction of negation with fragment answers. The ability to use negative concord items as fragment answers has been taken as evidence their having an inherent negative force; this chapter considers positions for and against this view, and what kind of assumptions (for the licensing of NCIs and/or for the interpretation of elliptical structure in fragments) would be required on each view, as well as considering the implications of double-negation readings for NCI fragments, and the availability of NPI fragments. The chapter also investigates the cooccurrence of a negator with a fragment answer (as in *Who ate the cake? – Not John, anyway*), exploring what ramifications such structures have for the syntax of fragments, and in particular for the choice between sententialist (elliptical) and non-sententialist analyses of fragments.

Keywords: fragment answers, negative concord items, negative polarity items, ellipsis, ellipsis identity, accommodation, NCI licensing, exceptional movement

25.1 Introduction

This chapter¹ discusses the interaction of negation with fragment answers, or subsententials – structures smaller than a clause which provide answers to (possibly implicit) questions, as in (1).

a. What did John eat? - [DP Chips].
b. Where did Mary go? - [PP To Paris].
c. John was speaking to someone. - Yeah, (to) Mary.

The chapter will focus on two theoretically interesting ways in which negation can interact with fragment structures. The first phenomenon of interest is the use of negative concord items (NCIs, (2)) and negative polarity items (NPIs, (3)) as fragment answers.

(2)a. ¿Qué comiste? – Nada. what eat-2P.PST – n-thing 'What did you eat? – Nothing.' [Spanish] mita no? – Nani-mo. b. Nani-o what-ACC saw O - what-MO 'What did you see? - Nothing.' [Japanese, Watanabe 2004: 564] venit? – Nimeni. c. Cine nu a who not has come n-body 'Who didn't come?' i. 'Nobody.' (= nobody came) ii. 'Everybody.' (=nobody didn't come) [Romanian, Fălăus and Nicolae 2016: 594]

¹ I thank two anonymous reviewers for their comments, as well as Yiannis Kokosalakis for Greek examples presented without other attribution. Any errors are of course mine.

a. What did he bring to the picnic? - *Any wine.
b. What didn't he bring to the picnic? - ?/% Any wine.

Fragments such as (2a, b) are grammatical, even though such NCIs usually need to be licensed by an instance of sentential negation which appears to be absent in the fragment's antecedent. Such fragments, and the contrast between (2) and (3), have been crucial to the debate over whether NCIs should be analysed as having inherent negative force, or rather as (a subtype of) NPI. The same question is raised by the ambiguity of NCI fragment answers in response to a question containing negation, as in (2c). The question of whether and to what extent the NPI fragment in (3) is acceptable also raises questions for the analysis of the syntax of fragments generally. These topics are taken up in section 2 of this chapter.

Secondly, fragments can be combined with an overt negator, as in (4), (5), and are understood as thereby communicating the negation of the proposition that the corresponding 'positive' fragment communicates:

- a. Who went to the party? Not John (anyway).
 b. Where did Mary go? Not Paris (anyway).
 c. Do you have any money? Not a cent.
- (5) a. Me pjon xorepse e Mary? Oxi me ton John pantos.
 with whom danced the Mary no with the John anyway
 'Who did Mary dance with? Not John, anyway.' [Greek]

b. Who did you go to the movies with? Con Clara no. / No con Clara. with Clara NEG NEG with Clara 'Not with Clara.' [Spanish, Vicente 2006]

If, as in one popular view, fragments are underlyingly sentential and derived by ellipsis of a full clause, then the examples in (4), (5) are problematic, as they appear to reflect word orders which are not otherwise grammatical (e.g. **Not John went to the party*). This is the topic of section 3.

In the remainder of this introduction, I will give some brief background concerning fragments and subsententials in general, and in particular one of the key debates in the relevant literature: given a fragment like (6), is its underlying structure elliptical for the full sentence in (6a) (the proposition it is understood as communicating), or is it the case that 'what you see is what you get' (WYSIWYG), as in (6b)?

(6) What did John eat? – A cake.
a. [s John ate [DP a cake]]
b. [DP a cake]

The first position can be termed the *sententialist* position (Hankamer 1980; Merchant 2004; Morgan 1973; Reich 2007; Stanley 2000; Weir 2014); the second, the *non-sententialist* position (Ginzburg and Sag 2000; Jacobson 2016; Stainton 1998, 2005, 2006a, b, and many of the papers in Progovac et al. 2006). A typical non-sententialist approach, of the type exemplified particularly by Robert Stainton's work, argues that fragments are interpreted as propositions (and ultimately as speech acts) by semantically (but not syntactically) composing them with some

discourse-salient property. This property can be made salient by an overt antecedent question, as in (7), but could also be merely implicit in the discourse, as in (8): here, non-sententialist views argue, ellipsis of syntactic structure is unlikely, as there is no linguistically available antecedent.

(7)	Q: What did John eat?	\rightarrow Makes salient the property ' λx . eat(John)(x)'
	A: A cake.	$= \lambda P. \exists x. P(x) \& cake(x)$
		\rightarrow composes to give ' $\exists x. eat(John)(x) \& cake(x)$ '

(8) [On getting into a taxi.] The train station, please. salient property: λx . the taxi should go to x

Proponents of the sententialist view, however, point to a number of grammatical properties of fragments in support of the claim that there is more syntactic structure than meets the eye. Merchant (2004) lists a large number of these: space allows for a summary of only one here, namely the claim that fragments appear to be dependent on A'-movement. That is, there is evidence that the correct representation of a fragment (on the sententialist view) is not (9a) (an 'in-situ deletion' approach), but (9b) (a 'move-and-delete' approach):

(9) a. John gave the flowers to Mary.b. The flowers John gave t to Mary.

The structure in (9b) has a theoretical appeal insofar as it allows deletion to operate on a single (derived) constituent, rather than the non-continuous, non-constituent deletion that (9a) would require. And there is also positive evidence for it: fragments do appear to undergo an A'-movement step, at least in the sense that only constituents which can be A'-moved (in a given configuration, in a given language) can be fragments. For example, the complements of a preposition in non-P-stranding languages (such as Greek, (10b)) cannot be fragments: it is obligatory to include the preposition (Merchant 2001, 2004's P-stranding generalization). See Weir (2014:ch. 4) for a list of other similar effects (but see also Ott and Struckmeier 2018 for some important recent counterarguments).

(10) a. Who did John talk to? – (To) Mary.
b. Me pjon milise i Anna? with whom spoke the Anna *(Me) ton Kosta. with the Kosta [Greek, Merchant 2004: 686]

If a fragment has undergone A'-movement, this of course implies that there is structure for it to move out from, and so data like (10b) have been taken as support for the sententialist view. Move-and-delete analyses are not universally adopted even by members of the sententialist camp, however; one notable difficulty for it is that – in the relevant context, i.e. answering a question – the putative sentential sources (with movement) are infelicitous (that is, English does not allow fronting of foci, only of topics):

(11) What did John eat? - #A cake he ate.

Space precludes a detailed discussion here of the relative merits of sententialist versus non-sententialist approaches, and of 'move-and-delete' versus 'in-situ' approaches within sententialism.² I have also not discussed the important question of whether, on an ellipsis view of fragments, ellipsis is licensed under *semantic* identity with an antecedent, *syntactic* identity, or some combination. This will be addressed to some extent in what follows; for more extensive discussion I refer the reader to e.g. the overviews in Craenenbroeck and Merchant (2013), Merchant (2019), and the references cited therein. I now turn to discussion of negation in fragments, and firstly to NCIs and NPIs.

25.2 Negative concord items and negative polarity items as fragments

The availability of fragment NCIs as responses to positive questions, despite the fact that the negation usually required to license them appears to be absent (12, 13), is one of the crucial arguments in the literature for distinguishing NCIs from NPIs (see also chapter 26); this was initially noted by Zanuttini (1991), and the possibility of standing alone as a fragment answer is taken by (for example) Giannakidou (2006) as a (pretheoretical) diagnostic of NCIs as a class.

- (12)a. ¿Qué comiste? – Nada. what eat-2sg.pst - n-thing 'What did you eat? - Nothing.' b. *Comí nada. ate.1SG.PST n-thing nada. c. No comí NEG ate.1SG.PST n.thing 'I ate nothing.' [Spanish] mita no? – Nani-mo. (13)a. Nani-o what-ACC saw Q – what-MO 'What did you see? - Nothing.' b. *Nani-mo mita. what-MO saw
 - c. Nani-mo mi-nak-atta.what-MO see-NEG-PST'I saw nothing.' [Japanese, Watanabe 2004]

The availability of such NCI fragments has been taken as evidence that NCIs must contain an inherent negation as part of their meaning (and so that something must ensure that sentences containing sentential negation plus one or more NCIs are interpreted as only containing a single semantic instance of negation, e.g. the 'negative absorption' or 'negative factorization' of Zanuttini (1991); Haegeman and Zanuttini (1991, 1996)). The fundamental argument, as laid out by Watanabe (2004), is that if an elliptical/fragment answer takes a positive proposition as its antecedent, as in (12), (13), the fact that the answer is interpreted as negative

² It should also be noted that they are not strictly mutually exclusive approaches. Throughout the work cited above, Stainton notes that he is open to the possibility that sententialist/ellipsis accounts could be correct for answers to explicit questions, while a non-sententialist account is in his opinion better suited to account for 'discourse-initial' fragments, such as *To the station, please* on entering a taxi. See also Merchant (2010) for discussion.

must come from negative force within the NCI itself. Giannakidou (2000, 2006)³, who argues against an inherently negative treatment for NCIs, argues that this is not a necessary conclusion, and that the ellipsis site in (14) in Greek for example can be taken to contain an appropriate (sentential) negation.

Watanabe (2004), in turn, argues against this analysis, pointing out that (contentful, i.e. interpreted) sentential negation cannot freely be allowed to be inserted in ellipsis sites, at the risk of wildly overgenerating fragments with negative interpretations: (15a) cannot be interpreted as (15b).

(15) a. Q: Nani-o mita no? what-ACC saw Q 'What did you see?' A: Hebi. snake
b. Hebi-o mi nak atta snake-ACC see-NEG-PST 'I didn't see a snake.'

Watanabe's argument is intuitively strong, but perhaps not watertight. It is independently known that ellipsis can (and must) sometimes tolerate some deviation from strict identity with an antecedent. The most famous example of this is Vehicle Change (Fiengo and May 1994), where the forms and interpretations of nouns and pronouns in an ellipsis site must be different from the antecedent in order to obviate binding theory violations or allow for possible sloppy interpretations; more pertinently to the current discussion, it appears to be possible to 'alternate' between NPIs in antecedents and their positive correlates under verb phrase ellipsis, as discussed in Hardt (1993); Johnson(2001); Merchant (2013); and originally by Sag (1976):

(16) John didn't talk to anybody, but Mary did talk to somebody.

This 'flexibility' in the content of an ellipsis site is often understood in terms of *accommodation* (van Craenenbroeck 2013; Fox 1999; Thoms 2015 among many others). The basic idea pursued by Fox (1999) is that elided material can sometimes be understood as differing from its antecedent – that is, an alternative ellipsis site is accommodated by the hearer – but only if there is some 'trigger', in that material which is pronounced, that prompts the hearer to carry out this accommodation. If this is generally possible, then it may be precisely the

³ Giannakidou's and Watanabe's work was developed over the same period; each refers to the other.

appearance of an NCI fragment – that is, a fragment which if used in a non-elliptical context would require the presence of sentential negation – that allows for the accommodation in the ellipsis site of that sentential negation, as in (14). The 'wild overgeneration' possibility in (15) would not occur, not because the grammar disallows the accommodation of negation in ellipsis sites per se, but because there is no trigger (in the form of a pronounced NCI) for negation to be accommodated into the ellipsis site in (15), and therefore the hearer would not perform such accommodation.

However, if negation can be 'accommodated' into an ellipsis site due to the presence of a trigger in pronounced material, one might expect that the presence of (something which is unambiguously) a negative polarity item should also be able to trigger this accommodation. This prediction is not borne out: (17b-ii) cannot be interpreted as elliptical for (17b-i), even for speakers who allow NPIs to be fragment answers in general as in (18) (data which will be discussed in more detail below).

- (17) A: Did you catch any fish?
 - a. (i) I caught some small ones, but I caught no big ones.(ii) Some small ones, but no big ones.
 - b. (i) I caught some small ones, but I didn't catch any big ones.(ii) *Some small ones, but/and any big ones.
- (18) What didn't you catch? Any big fish.

It is unclear, then, that negation can in fact be 'accommodated' into an ellipsis site, at least in fragment answers;⁴ so the fact that NCI fragment answers are interpreted with negative force (while unambiguous NPIs cannot be) continues to be a strong argument in favour of inherent negative force for NCIs.

The data are also, however, compatible with a view that takes NCIs not to have inherent negative force – if certain assumptions are made about the formal licensing of NCIs, and how this licensing might differ from that of 'true' NPIs. Zeijlstra (2004, 2008) argues that NCIs do not have the semantic force of negative quantifiers, but that they are endowed with uninterpretable Neg features in the syntax, which need to be licensed/checked under (reverse) Agree with an instance of interpretable negation. Importantly, this interpretable negation can be provided either in the form of an overt negator, as in (19), or as a covert operator, as in (20).⁵

(19)	a. Gianni non telefona a nessuno Gianni NEG calls to n-body	
	'Gianni doesn't call anybody.'	
	b. Gianni non[iNEG] telefona a nessuno[uNEG]	[Italian, Zeijlstra 2008: 26]

⁴ And see also Merchant (2013: sec. 3.3) for discussion of the difference between VP ellipsis (e.g. examples like (16) and the apparent inability to change polarity between antecedent and elided clause in clausal ellipsis such as fragment answers (and sluicing).

⁵ This is a very schematic overview; I refer to Zeijlstra's work for the full details.

(20)	a. Nessuno	ha	telefonato	
	n-body	has	called	
	'Nobody o	allec	1.'	
	b. $Op_{[iNEG]}$ r	nessu	no _[uNEG] ha	telefonato

[Italian, Zeijlstra 2008: 39]

Note that the insertion of $Op_{[iNEG]}$ has to be understood as something like a 'last resort' operation to license an instance of [uNEG] which would otherwise go unlicensed (by e.g. sentential negation), as in the subject case in (20). This covert negation operator, in other words, cannot be inserted to 'substitute' for sentential negation, if sentential negation could otherwise be spelled out in a position where it would license the NCI; that is, cases like (21) are not possible.

(21) $*Op_{[iNEG]}$ Gianni telefona a nessuno_[uNEG]

Fălăus and Nicolae (2016) propose that such an $Op_{[iNEG]}$ can be inserted also in elliptical contexts (as well as a few other cases I put aside here; see Fălăus and Nicolae 2016:593f.) – that is, in cases where sentential negation could not be spelled out – as a similar 'last resort' mechanism to license NCIs (22). Note that Romanian, in contrast to Italian, would generally require sentential negation to license even subject NCIs ('strict' negative concord).

(22)	A: Who called? B: Nessuno.	
	[<i>Op</i> _[iNEG] [Nessuno [ha telefonato]]]	[Italian; cf. Zeijlstra 2008: 41f.]
(23)	a. Cine a venit? – Nimeni. who has come n-body 'Who came? – Nobody.' [<i>Op</i> _[iNEG] [Nimeni [a venit]]]	
	b. Nimeni *(nu) a venit. n-body not has come	[Romanian; Fălăus and Nicolae 2016]

By contrast, 'true' NPIs would be taken not to have formal licensing requirements in the syntax; that is, they would not bear [uNEG] features, and the 'last resort' insertion of a covert negation operator would not take place.⁶ NPIs would still, however, be required to be *semantically* licensed (by whatever the relevant condition on NPIs is, e.g. downward-entailingness or non-veridicality), and this would not be possible in the absence of a relevant operator such as negation (either sentential negation or a covert negative operator). This is, in essence, a way of making the relevant 'cut' between (the licensing conditions for) NCIs and NPIs which allows for the (apparent) accommodation of negation in elliptical contexts to permit cases like (22), while disallowing such putative accommodation in cases like (17), partially repeated in (24).

⁶ A reviewer asks whether, on this view, NPIs have any polarity features or other features in common with NCIs. As far as I understand, there would not need to be, and perhaps could not be, any formal (syntactic) polarity feature in common between the two. How to reconcile this with the discussion in Merchant (2013), in which NPIs (or rather existential quantifiers) crucially do have a polarity feature which is valued under agreement with sentential polarity (a underspecification analysis which allows for the kind of alternation under ellipsis seen in example (16)), is a tension I have to leave aside here.

(24) A: Did you catch any fish?B: *Any big ones. (intended: *I didn't catch any big ones*)

Fălăus and Nicolae (2016) develop this analysis further in order to capture the surprising fact that, in strict negative concord languages, NCI fragment answers can convey a double negation (DN) reading if used in response to a negative question (see chapter 14), even though their putative sentential sources only allow for a single negation/negative concord (NC) reading.

(25) [Romanian, Fălăus and Nicolae 2016: 594] Cine nu a venit? Nimeni. who not has come n-body 'Who didn't come?' 'Nobody.' a. You're the first one here. [= NC: nobody came] b. Everybody's here. [= DN: nobody didn't come = everybody came]

(26) [Romanian, Fălăus and Nicolae 2016: 595] Nimeni nu a venit. n-body not has come
'Nobody came.' [only NC, ≠ 'everybody came']

If we suppose, with Fălăus and Nicolae (2016), that the insertion of a covert negation operator is only possible in cases where sentential negation is unavailable (e.g. in elliptical cases), that rules out a double negation reading for a case like (26), but allows for covert negation to be inserted – optionally⁷ – in the elliptical context in (25). Importantly, this covert negation introduces a negative force *in addition to* the sentential negation contained within the ellipsis site, leading to the availability of a double negation reading. (I omit here some details concerning the scope position of the NCI with respect to the two negations; see Fălăus and Nicolae 2016: 596.)

(27)	a. [Nimeni [nu a venit]]	(= single negation, $\neg \exists x P(x)$)		
	b. [<i>Op</i> neg [nimeni [nu a venit]]	(= double negation, $\neg \exists x \neg P(x) = \forall x P(x)$)		

An alternative account for these data may be to say that covert negation is always inserted alongside a fragment NCI (to formally license it), and the distinction in (27) concerns optionality in whether the *sentential* negation is taken to be present in the ellipsis site.⁸ This is

(i) Who didn't come? –Not the students (anyway).

⁷ A reviewer raises concerns about the extent to which this optionality is constrained. The process would have to be constrained by (i) only being available in elliptical contexts, and (ii) only being available if an NCI requires licensing ('last resort'). Some analog of (ii) would be required in any approach to NCIs which countenances a covert negation approach to their licensing, but it is clear here that a lot rests on the precise formulation of 'last resort'. See Breitbarth (2014: 147), Espinal and Tubau (2016), and Zeijlstra (2008: 22) for some discussion.

 $^{^{8}}$ Note also that, in English, a double negation reading is possible for (i), and – to my ear – a single negation reading is also available, though more marginally:

a. [not [the students [didn't come]]] = the students didn't not come = the students came

b. ?[not [the students [came]]] = the students didn't come

If that's right, then it may indeed be possible to 'shift' from a negative antecedent to a positive ellipsis site, as long as negation is overtly expressed in some way – either by a negative particle as in English, or by the presence of an NCI in negative concord languages. Cf. discussion of negated fragments in section 3. As a reviewer points out, the behaviour of polarity responses such as *yes* and *no*, and the ambiguity (or intermediate acceptability) of

also presumably the tack that those who analyze NCIs as inherently negative (and who are unwilling to countenance covert negation) would need to take in order to capture the double negation reading in examples like (25). Another possible alternative would appeal to lexical ambiguity in NCIs, along the lines of Herburger (2001): Espinal and Tubau (2016) report that some speakers of Spanish and Catalan (non-strict negative concord languages) also allow for double negation readings for NCI fragments with negative antecedents, which they analyze as lexical ambiguity in NCIs between polarity items and negative quantifiers.

Fragments, then, while of crucial importance to the debate, do not necessarily offer watertight arguments for or against any particular view of NCIs. We can note in passing, however, that non-sententialist analyses of fragments (at least if adopted strictly) seem forced to assume that NCIs have (or can have) an inherently negative reading: if NCIs are simply indefinites, and if fragments are simply words or phrases in isolation, then NCI fragments should either have a (positive) indefinite reading or simply be ungrammatical (as they have no licensor). A non-sententialist account which took the view that NCIs did not have inherent negative force would at minimum require a covert constituent negation in construction with an NCI fragment, as in (28), which would be possible as such but which would arguably go against the WYSIWYG spirit of such analyses (and cf. upcoming discussion in section 3 concerning the feasibility of such constituent negation analyses in general).

(28) a. [[nessuno]] = λP . $\exists x$. P(x) & person(x) b. [[Neg]] = $\lambda X_{<\sigma, \, \triangleright}$. λY_{σ} . $\neg X(Y)$ c. [[[Neg nessuno]]] = λP . $\neg \exists x$. P(x) & person(x)

A last point to consider in this section is the status of NPI fragment answers. As noted above, these are ungrammatical in response to positive questions, but at least some English speakers accept them in answer to negative questions. There appears to be some interspeaker variation on this point – and see Temmerman (2013) for discussion of the (un)acceptability of similar NPI fragments in Dutch – but all of den Dikken et al. (2000), Valmala (2007), and Weir (2014) report examples like (29) to be grammatical.

(29) (after den Dikken et al. 2000: 45)A: (I know what John *did* bring to the party, but) what *didn't* he bring?B: %Any wine.

Valmala (2007) and Weir (2014) argue that the availability of such fragments argues against a move-and-delete analysis of fragments; given the movement in (30), the NPI *any wine* is outside the scope of its licensing negation.

(30) [Any wine [he didn't bring t]]

(ii) Did John not write to Mary? - ?Yes.
a. ? = John did not write to Mary.
b. ? = John did write to Mary.

responses to negative questions such as (ii), is surely also relevant here; space precludes detailed discussion here, but see Brasoveanu et al. (2013); Holmberg (2016); Kramer and Rawlins (2011); Roelofsen and Farkas (2015); for relevant discussion.

Valmala (2007) uses this fact (among others) to argue in favor of a kind of nonsententialist analysis of fragments. For den Dikken et al. (2000), it is evidence in favor of an in-situ sententialist account without movement. Weir (2014) argues that fragments do move, but only at PF in order to escape an ellipsis site, not at LF; the NPI fragment in a case like (29) would then be within the scope of its licensor at LF. Any of these approaches can in principle account for the datum in (29). That datum, however, may not necessarily be problematic for a movement account if NPIs can (in certain circumstances) be permitted to reconstruct to a position under their licensing negation, as in the famous example in (31a)⁹ (see de Swart (1998), as well as Uribe-Echevarria (1994) and other references cited therein), which contrasts with ungrammatical cases such as (31b).

(31) a. A doctor with any reputation was not available.b. *Anyone was not available.

I refer to de Swart (1998) for a pragmatic analysis of why inverse scope (reconstruction) should be possible for the NPI in cases like (31a) but not (31b); importantly, a contrast similar to (31) appears to obtain with NPI fragments, potentially accounting for some of the divergent speaker judgements in this (Merchant (2004: 691) marks examples similar to (32b) as ungrammatical, for example).

(32) Who were you not able to consult?a. A doctor with any reputation.b. ??Anyone.

This difference would then be consistent with NPI fragments having fronted as in (30), with inverse scope (i.e. reconstruction) being licensed in (29) and (32a) but not in (32b).

25.3 Negated fragments

I now move to discussion of fragments which co-occur with a negator, as in (33).

(33) Who came to the party? – Not Ben, anyway.

Merchant (2003, 2006) compiles data from a number of languages for the closely related structure of 'negative stripping', (34), (35). I will take such cases of stripping to be derived by the same process as fragment answers (see Merchant (2003) for justification for this move).

(34)	(Merchant 2006: 21)					
	Anna	left	but	not	Ben.	[English]
	Anna	ging	aber	nicht	Ben.	[German]
	Anna	ging	maar	niet	Ben.	[Dutch]
	Anna	gikk	en	ekki	Ben.	[Icelandic]
	Anna	est partie	mais	pas	Ben.	[French]

⁹ Sauerland and Elbourne (2002) discuss similar cases and argue that they arise because of movement of the subject at PF only, the motivation for Weir (2014: ch. 4)'s PF-movement account of similar fragments.

(35) (Merchant 2006: 21)

`						
I Anna	a efige	alla	oxi	o Ben	•	[Greek]
Anna	è partita	ma		Ben	no	[Italian]
Anna	poshla	no		Ben	njet	[Russian]
Anna	left	but	no	Ben	no	

There is cross-linguistic variation along a number of axes concerning such structures, as Merchant discusses. Firstly, languages differ in whether the negator in such structures is the standard sentential negator (parallel to English *not*), or a particle that could be used as a standalone response (that is, parallel to English *no*).¹⁰ Merchant identifies the cross-linguistic difference as being between those which use phrasal negation (e.g. English, German, Dutch, French), which use this phrasal adverb in negative fragments, and those with head or affixal negation, such as Greek and Italian (head) and Swahili and Turkish (affixal), which use the response particle. Merchant notes that head negation never appears to be used in such structures; languages which express negation as a head or a verbal affix but which lack a response particle 'no', such as Irish, simply lack structures like (33).

A second axis of difference concerns the linear order of the fragment and negator. The 'adverbial' languages seem to systematically place the negator to the left of the fragment, as shown in (34), but the 'particle' languages vary; for example, Greek places the negator to the left, but Russian places it to the right. In Spanish, both orders are possible, as Vicente (2006) discusses:

(36)	(repeated from (5b), Vicente 2006: 199)					
	Who did you go to	the movies with?				
	a. Con Clara no.	b. No con Clara.				
	with Clara NEG	NEG with Clara				
	'Not with Clara.'					

Vicente notes that this difference in order gives rise to a difference in interpretation: (36a) is the unmarked form, while (36b) gives rise to a corrective interpretation, i.e. it repudiates a previous (possibly implicit) assertion that the speaker did go to the movies with Clara, and also presupposes that the speaker did indeed go to the movies with someone (just not with Clara). See also Servidio (2013) for discussion of similar facts in Italian.

As Merchant (2003) notes, there are in principle two analyses that can be adopted to deal with negated fragments of this type. The first is to assume that *not* forms a constituent with the fragment, an analysis proposed by Depiante (2000) for Spanish. This analysis is the only one available to nonsententialist/WYSIWYG approaches, shown in (37a); it is also compatible with in-situ sententialist analyses, as in (37b), and move-and-delete analyses, as in (37c).

(37) What did John give to Mary? – Not flowers (anyway).

a. [not [DP flowers]]

b. John gave [not [DP flowers]] to Mary

c. [[not [DP flowers]]i [John gave ti to Mary]]

 $^{^{10}}$ As Merchant notes, some languages use the same word for both purposes (e.g. Spanish *no*), and so it is impossible to tell which category they belong to.

In the second possible analysis, compatible with a sententialist analysis but not a nonsententialist one, negation does not form a constituent with the fragment, but rather inhabits a left-peripheral position above the deleted clause, shown for an in-situ analysis in (38a) and a move-and-delete analysis in (38b). I will refer to this as a left-peripheral negation analysis.

(38) a. [Not [John gave flowers to Mary]
b. [Not [flowers_i [John gave t_i to Mary]]]

Neither of these analyses are immediately highly satisfactory, particularly for sententialist analyses, which seem forced to assume underlying word orders that aren't grammatical.

- (39) a. *John gave not flowers to Mary.
 - b. *Not flowers John gave to Mary.
 - c. ??Not flowers did John give to Mary.
 - d. **Not John gave flowers to Mary.

The constituent negation analysis, however, may on the face of it be more initially promising given that (39c) is perhaps less bad than the others (especially the left-peripheral negation in (39d)); that (39a) becomes good in construction with *but* (40); and that constituent negation is grammatical in a range of other contexts (41); in fact, possibly it is only *un*grammatical in cases like (39a), where it appears to be 'pre-empted' by sentential negation, *John didn't give flowers to Mary*.

- (40) John gave not flowers but chocolates to Mary.
- (41) (Klima 1964: 305, taken from Toosarvandani 2013: 849)
 - a. He found something interesting there **not** long ago.
 - b. He had spoken with someone else **not** many hours earlier.
 - c. He married a **not** unattractive girl.
 - d. Writers **not** infrequently reject suggestions.

There are, however, problems for the constituent negation analysis – or at least indications that it is not the only available strategy. One problem comes from interpretation, as Merchant (2003) notes in cases like (42) (see Vicente (2006: 204) for equivalent Spanish data).

(42) A: What did Beth say she wanted to study?B: Not French.

The fragment in (42) can have the reading 'Beth didn't say she wanted to study French', i.e. there was no event of Beth saying this. (It is compatible with Beth wanting to study French but happening not to give voice to this opinion, for example.) However, if only constituent negation were available, (42) could only mean something like 'Beth said she wanted to study not French' (i.e. Beth did say something, and that something had the content that she did not want to study French): there would be no way of getting constituent negation to scope over *said* in the requisite way.

There are also purely syntactic problems with a constituent negation analysis. For example, such an analysis does not immediately have anything to say about the Spanish cases in (36a), *Con Clara no* 'with Clara NEG', where the negator comes after the fragment: this is not a possible word order for constituent negation in Spanish. In addition, Merchant (2003, 2006) notes other cases which appear to involve clausal ellipsis and *not* (43). In these cases, a constituent negation analysis seems untenable, as there is no constituent to negate.

(43) a. If he comes, it'll be fine; if not, we have a problem. (=if he does not come...)b. I don't know whether he'll be there or not. (=or whether he will not be there)

To which we can add:

(44) Is he coming? – Possibly not.

In (44), *not* is not a constituent negation of *possibly* (which would give the wrong scope); rather, *not* has to be taken to be negating the (elided) sentence *he's coming* (with *possibly* taking widest scope over the negated sentence).

It should be noted that all of these data and arguments are compatible with constituent negation being *one available* strategy for negated fragments (as Vicente 2006: 207 notes). But it does appear that a sentential negation parse has to be available in addition.¹¹ In-situ sententialist analyses make the right predictions with regard to word order in a number of cases:

(45) a. What did John give to Mary? – Not flowers, anyway.
 = John did not give flowers to Mary anyway
 b. Is he coming? – Possibly not today.

= Possibly he is not coming today

But not with respect to subjects:

(46) Who danced with Mary? – Not John, anyway./*John not, anyway. \neq John did not dance with Mary anyway.

And it is not immediately obvious why head negation (either alone, as with Greek *dhen* in (47b), or affixed onto a verb) would not be a grammatical remnant under such in-situ deletion. (This is a particular case of the general problem faced by in-situ accounts that heads¹² cannot be ellipsis remnants.)

(47) a. Who did Mary dance with? -- *Didn't John, anyway. ≠ Mary didn't dance with John anyway
b. {Oxi/*Dhen} me ton John pantos.
no not with the John anyway [Greek]

¹¹ To the extent that nonsententialist analyses of fragments can only appeal to constituent negation, this can then be taken as an argument that a sententialist parse must at least be one of the available structures for fragments.

¹² That is, non-phrases: single-word constituents that are simultaneously heads and phrases (e.g. intransitive verbs/VPs in cases like *What will he do then? – Dance*) can be fragments.

Merchant (2003) and Vicente (2006) argue that negation in these contexts is hosted in a left-peripheral NegP (or Σ P/PolP), above the Focus position to which fragments are assumed (on a move-and-delete analysis) to move in English. Vicente in addition assumes that (at least in Spanish) a further projection, TopP, is available to host movement – thereby allowing for the two orders in (36) (and, to the extent that information-structural properties can be 'read off' the cartographic labels TopP and FocP, also accounting for or at least encoding the information structure differences between the two answers). If Σ P can also host positive polarity, then this structure can also account for the positive fragment answer in (50).¹³

(48) $[_{\text{TopP}} [_{\Sigma P} \text{ not} [_{\text{FocP}} \text{ John}_i [_{\overline{\text{TP}} \cdots t_i}]]]$

(49) a. No con Clara. 'not with Clara' [ΣP no [FocP con Clara; [TP ... t; ...]]]
b. Con Clara no. 'with Clara not' [TopP con Clara; [ΣP no [TP ... t; ...]]]]

(50) Con Clara sí. 'with Clara yes'

While the idea that polarity can be expressed in a very high position in the clause is not a new proposal (dating back at least to Laka (1990), and see also chapter 9), the analysis in (48) does still have to reckon with the fact that such negation does not generally appear in this position in English or Spanish outside of elliptical contexts, a restriction which both Merchant and Vicente simply have to stipulate. In addition, it is not immediately obvious why *phrasal* negation is required, that is, why head negation apparently cannot be inserted in Σ^0 in (48).¹⁴

In sum, then, constituent negation analyses of negated fragments may be correct for a subset of cases but cannot account for them all; but sentential analyses face the problem of otherwise unattested word order (whether they assume negation is in-situ, or in a left-peripheral position). Space precludes a detailed discussion of which view is correct here, but the left-peripheral account is sufficiently attractive especially given the data in (49) that I would like to briefly sketch two possible views of how its problems might be resolved.

One would take a lead from the discussion of the insertion of covert negation in section 2, as proposed by Fălăus and Nicolae (2016). Recall that they proposed that negation is generally insertable in a left-peripheral position (following Zeijlstra 2004, 2008), but only in elliptical contexts, and only as a 'last resort': the intuition being that "you cannot appeal to covert negation if you have the space where you could have spelled out an overt negation" (i.e. 'normal' sentential negation, Fălăus and Nicolae 2016: 592). In the cases they were concerned with, the negation was covert, and the 'last resort' was to license an otherwise unlicensed negative concord item. Suppose that in negative fragment cases like *Not John*, negation can also be inserted in a left-peripheral position under ellipsis, as a 'last resort' in order to indicate the negative polarity of the response: while such negation can be covert in construction with an NCI

¹³ But see Servidio (2013) for a slightly different account in which the polarity particles occupy FocP itself, following Holmberg (2011, 2016). On ellipsis accounts of polarity particles in general (a matter which is clearly relevant but which space unfortunately precludes a detailed discussion of), see references in footnote 8.

¹⁴ And indeed, in those cases other than ellipsis where a left-peripheral negation phrase has been adduced for (dialectal varieties of) English (e.g. Foreman 1999; Green 2014) – cases of apparent negative auxiliary inversion such as *Ain't nobody take the bus* – the negator appears to be a head (an *n't*-marked verb), not an adverb.

(because negation is overtly signalled by the morphology on the NCI itself), it must be overt if the fragment does not bear any negative morphology, as in the examples under discussion here.¹⁵ This proposal would tie together the syntax of negation independently proposed for negative concord languages with the syntax of negative fragments in non-negative concord languages like (Standard) English – though it would await elaboration of the precise nature of the 'last resort' condition on the insertion of left-peripheral negation. It is also unclear whether it necessarily captures the 'adverb/phrasal negation only' restriction discussed in Merchant (2003, 2006). This could potentially hinge on the question of the nature of the left-peripheral negative operator and whether head negation is ever taken to independently contribute (semantic) negative force in the absence of such an operator; see Zeijlstra (2004, 2008) for discussion.

An alternative is to suggest that the left-peripheral *not* is in fact normal sentential negation which has moved from its middlefield position to a left-peripheral position.

(51) [Not_i [flowers_j [John t_i gave t_j to Mary]]]

This would then be a case of *exceptional movement*, that is, a kind of movement that is only triggered in elliptical situations. Such movement has been appealed to in the analysis of other elliptical phenomena; for example, pseudogapping (52a) is often analyzed as movement of an object out of the (VP) ellipsis site ((52b); Fox and Pesetsky 2005; Gengel 2013; Jayaseelan 1990, 2002; Johnson 2000; among others). As (52c) shows, such movement is ungrammatical absent ellipsis.

(52) a. He would eat more potatoes than he would carrots. b. ...than he would $[_{XP} \text{ carrots}_i [_{YP} \text{ eat } t_i]]$

c. *...than he would carrots eat.

And in fact the kind of movement appealed to in the move-and-delete analysis of fragments is 'exceptional' in general in English (see Boone 2014a, b; Weir 2014): the putative sentential source for (53) on the move-and-delete analysis is infelicitous.

(53) What did John eat? -- #Chips_i he ate t_i.

If we grant that movement is indeed 'exceptionally' possible out of an ellipsis site, then we might contemplate that *not* (and similar negative adverbs in other languages) can also undergo such movement, as in (51). If such movement is A'-movement – which can apply only to phrases, not heads – then we would also understand why negation in fragments is restricted to adverbial/phrasal negation. It may also give us a handle on other apparently out-of-place adverbs in fragments, such as (54).

¹⁵ Vicente (2006: 206) notes that overt negation is in fact incompatible with an NCI fragment (i), which is compatible with the view sketched here.

⁽i) A: What has John read?B: (*No) ningún libro. not n-one book

- (54) A: Who wins the pub quiz each week?B: Never our team (anyway).B': Our team always our team.
- (55) a. Our team {never/always} wins.b. *Never our team wins.c. *Always our team wins.
- (56) Putative exceptional movement of the adverb under ellipsis:
 [always/never_i [our team_j [t_j t_i wins]]]

While an 'exceptional movement' analysis has these advantages, it should be noted that it still needs to stipulate the landing site for 'exceptionally moved' negation (to rule out the word order **John not*). It is also not immediately compatible with the 'double negation' facts mentioned in footnote 8, where the putative left-peripheral negation would have to be additional to the sentential negation and so the former could not be a moved instance of the latter. The correct syntax for negated fragments, then, is a project which still awaits a complete answer.

25.4 Conclusion

This overview has only scratched the surface of the interaction of negation and fragments, but it is clear that further research in both of these domains have the potential to feed the other. Negation clearly provides one way, for example, to potentially adjudicate between different theories of ellipsis identity and the sententialist/non-sententialist dispute: as argued above, in the absence of an elaboration of the possible interpretations of constituent negation, the availability of negative fragment answers appears to speak in favour of a sententialist approach (or at least that a sententialist analysis is available). The interpretation of fragment NCIs, especially the availability of single- and double-negation readings, also provides a testing ground for the question of how 'flexible' the identity relation between antecedent and ellipsis site can be (e.g. whether it is possible to 'accommodate' a different polarity in an ellipsis site from the antecedent). Conversely, further research on identity and accommodation in ellipsis can itself shed further light on the question of whether NCIs must be taken to bear an inherent negative semantics; for example, if we find incontrovertible evidence that ellipsis site cannot be accommodated in the way that 'NPI' theories of NCIs would require. As an anonymous reviewer notes (see also footnote 8), a concrete avenue for further empirical research here would be the interaction of polarity particles (yes and no) with questions containing NCIs. In sum, many interesting problems remain in this domain - both for the negation theorist and the ellipsis/fragments researcher.

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