A class of Italian nonsententials called polarity fragments is examined in the context of a general theory of ellipsis. Polarity fragments are composed of an XP and a polarity particle. Deletion analyses have been proposed for two related classes of nonsentential expressions, which I call simple fragments and responding particles. I will present these analyses and some objections that have been raised against them. I then discuss the syntactic and interpretive properties of polarity fragments, and I argue that they can be analyzed in a way close to what has been proposed for the other expressions, with in addition a crucial role for contrastive topics. I show that in the case of polarity fragments the objections to a deletion analysis are considerably weaker.

1. Introduction
It is not unusual for subsentential constituents to be used in a communicative exchange to express a meaning typically associated with sentences:

(1) Who bought the cheese?
John (= John bought the cheese)

These constituents are called nonsententials or, more transparently, fragments. Their deceptively simple appearance may lead us to look at them as merely peripheral phenomena, far removed from the ‘core’ that makes up the object of syntactic theory. That would be too hasty a judgement, though. The proper analysis of fragments is actually a debated topic, with many implications for the architecture of grammar and the division of labour between syntax, semantics and pragmatics.

In this paper I discuss a class of comparatively understudied fragments, which consist in a phrase followed by a particle equivalent to English yes or no:

(2) a. Gianni       sì.
    Gianni       yes.

* This is an exposition of ongoing research which will appear as part of Servidio (in prep.). In the occasion of Luigi Rizzi’s birthday, I will take the chance to thank him: for good or bad, he is the main responsible for the world having one more linguist around. The MA Program in Linguistics that he directed in Siena was eclectic enough to accept a philosopher like me and, needless to say, of the best scientific quality. I also had the uncommon privilege to study in the company of somebody who has played a key role in the development of syntactic theory for no less than thirty years. So thanks a lot for everything.

2012 Emilio Servidio
Internet celebration for Luigi Rizzi’s 60th birthday
b. Il libro si.
The book yes
c. A casa no.
At home yes
d. Andare al mare no.
Go to the beach no

The particles are stressed, and no pause or intonational break is needed between the two elements. As can be seen in (2), the initial XP can be a DP, a PP, or a clausal constituent. The fragments in (2) can be thought of as preceded e.g. by the following questions:

(3)  a. Chi (di voi) ha cenato?
‘Who (among you) has had dinner?’
b. Cosa hai letto (del programma d’esame)?
‘What has you read (among the required readings)?’
c. Dove ti piacerebbe cenare?
‘Where would you like to eat?’
d. Cosa ti piacerebbe fare domenica?
‘What would you like to do next Sunday?’

The fragments at hand have been discussed for Spanish by Depiante (2000) and Vicente (2006). These authors discuss the phenomenon in the context of what is called negative stripping in the classic generative literature (e.g. not John). Depiante coins the label “pseudostripping” for the Spanish equivalents of (2), while Vicente calls them negative fragments. In the lack of uniform terminology, I will call them “polarity fragments”, with reference to the fact that they include a particle expressing a polarity value.1 To distinguish polarity fragments from the fragments exemplified in (1), I will call the latter “simple fragments”.

In what follows, I will analyze polarity fragments as elliptic structures consisting in a topicalized XP and a particle in a focus position. I will show that this analysis accounts for the basic discourse properties of the fragments. I will also argue that some syntactic properties of polarity fragments can be taken as evidence in favour of a deletion approach to fragments à la Merchant (2004).

The paper is articulated as follows. Section 2 and 3 concisely summarize the debate on two topics arguably related to polarity fragments, respectively simple fragments and polarity particles. In Section 4 I give some syntactic and interpretive arguments for my analysis of polarity fragments. In Section 5 I consider some implications for a general theory of fragments and for syntactic approaches to focus.

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1 There is a cautionary reason not to adopt Depiante’s terminology. Depiante does not deal with fragments in the narrow sense (strings XP + particle used in isolation), but rather with coordinate structures like the following (Depiante 2000: 124):

i. Ana leyó El Quijote pero María no.
Ana read El Quijote but María not

While it is plausible (and desirable) that an analysis of the isolated fragments could extend to the latter cases (or vice versa), it can be useful to have different labels.

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2. Simple fragment answers

In the syntactic literature, there are two broad families of approaches to seeming ellipsis phenomena. First, one can assume that the seemingly incomplete syntactic object is actually complete at some appropriate syntactic level of representation. Second, one can assume that the missing syntactic structure is indeed absent, and other non-syntactic devices are responsible for the interpretation. In the case of fragments, these two options amount to this: either fragments actually have a full sentential structure, which gets deleted or is left unpronounced, or they are generated as nonsentential objects and handed out to the interpretive interfaces in that form. Let us call the former approaches “structural” and the latter approaches “nonstructural”. A further, relevant distinction can be made in the structural approach. Some analyses posit full-blooded syntactic structure of the ordinary sort as a source for elliptical sentences: these are called deletion approaches. Other approaches posit null proforms in the ellipsis sites, which are interpreted via procedures of anaphora resolution, or copy.

Apart for the nature of ellipsis itself, a relevant issue is the nature of the licensing mechanisms of ellipsis. It is intuitively clear that linguistic material cannot be omitted at will. A fragment, like other elliptical expressions, cannot be used in isolation and without a rich conventional context. However, surface syntactic identity with an ‘antecedent’ is too simple a criterion for licensing. Merchant (2012) exemplifies this point as follows:

(4) a. Jake ate the sandwich even though his friend told him not to.
   b. Jake ate the sandwich even though his friend told him not to eat the sandwich.

In (4) we see a case of VP ellipsis in English: the bare form selected by to is not surface identical with the simple past form in the antecedent VP. Examples of this kind can be easily multiplied. Thus, a more sophisticated identity criterion must be formulated.

Merchant (2004) extends his former analysis of sluicing to simple fragment answers. His treatment combines a structural position on the nature of ellipsis (ellipsis sites contain unpronounced syntactic structure) with a semantic criterion of licensing. He posits a feature [E] (for “ellipsis”) which can be assigned to some head in the CP area. At the phonological interface, [E] triggers non-pronunciation of the complement of the head endowed with the [E] feature. Semantically, [E] is a partial identity function on the meaning of the complement of the head to which [E] is assigned, which is only defined if the meaning of such complement is given in a technical sense. Thus, givenness represents the licensing condition for ellipsis in Merchant’s system. The implementation of non-pronunciation through the [E] feature has the consequence that only syntactic constituents can be omitted. In the following example, [E] on an inflectional head triggers VP ellipsis (adapted from Merchant 2001):

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2 See Merchant (2012) for a survey of theoretical approaches. A taxonomy along different lines is in Winkler and Schabe (2003).
3 More precisely, the relevant notion is e-GIVENness, defined as follows: An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo ∃-type shifting,
(i) A entails F-clo(E), and
(ii) E entails F-clo(A)
∃-type shifting is an operation that raises expressions to type (t) and existentially binds unfilled arguments. F-clo(α) is the result of replacing focus marked parts of α with ∃-bound variables of the appropriate type (modulo ∃-type shifting).

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(5) Al ate a sandwich after Ben did [E] \{eat a sandwich\].

In the case of fragment answers, many *prima facie* non-constituent deletions are attested. Take for instance the following:

(6) a. What did John buy?
   b. The cheese.
   c. \{John bought the cheese\]"

Merchant analyzes such fragments as analogous to slucing structures, in which an element is moved to the CP area and the rest of the clause is deleted:

(7) Abby was reading something, but I don’t know what \[wh\] C° \[wh, E\] \{… Abby was reading \[E\] \}

In both slucing and fragment answers the \[E\] would then be located on a head in the left periphery, coupled with a strong feature that triggers movement. In the case of slucing, the feature would be a \[wh\] feature (or whatever feature is thought to trigger movement in \[wh\]-interrogatives). In the case of fragments, Merchant proposes that the relevant feature is a focus feature, since fragments are interpreted as corresponding to \[wh\]-words in a preceding question, and Question-Answer Congruence is one of the classic criteria for focal status. Intuitively, the fragment expresses new information, with all the given information being omitted. The structure of a simple fragment would be as follows:

(8) the cheese \[F\] C° \[F, E\] \{… John bought \[E\] \}

Merchant’s approach to fragments and other ellipsis phenomena is a structural approach – specifically, a deletion approach – with a semantic notion of licensing. However, other contemporary scholars reject the deletion approach and argue that fragments are generated by the grammar as self-sufficient subsentential constituents, and the sentential interpretation is obtained with other means. These authors generally agree with Merchant on the focal nature of the fragment answers, and actually propose that information structure might play a decisive role in the interpretation of fragments. In addition, Barton (1990) and Stainton (2006) assume that a crucial role is played by some pragmatic enrichment operations, formulated in terms of Gricean pragmatics or Relevance Theory, respectively. These approaches can thus be regarded as true nonstructural approaches to fragments. On the other hand, Casielles (2006) and Valmala (2007) assume that the syntactic structure of the preceding question is copied in the ellipsis site at some point, yielding a structural non-deletion approach.

Arguments in support of deletion approaches draw on a range of connectivity effects: one observes that fragments display the same morphosyntactic properties they would if they were part of a sentence. Merchant (2004) presents examples from various languages. In languages with visible case morphology, nominal fragments display the case marking that one would expect in complete sentences:

(9) a. Q: Wem folgt Hans?
   \quad \text{who.DAT follows Hans}
   \quad \text{‘Who is Hans following?’}
   \quad \text{the.DAT teacher}
   c. A2: *Den Lehrer.
The ACC teacher

Critics of deletion approaches present counterexamples in which fragments consisting of pronouns exhibit a case other than the one that would be expected in a complete sentence. Another set of connectivity effects, known since Morgan (1973), is represented by binding effects. Fragment answers consisting of reflexives, pronouns and referential DPs behave as expected in full sentences (examples adapted from Merchant 2004):

(11) a. Q: Where is he staying?
   A: *In John’s apartment.
   b. Q: Who did John try to shave?
   A: *Him.
   c. Q: Who does John like?
   A: Himself.

While case matching and other connectivity effects are taken as evidence for a sentential analysis of fragments, Merchant also has to support the claim that the derivation of fragments involves movement. Two sources of evidence are preposition stranding and island sensitivity. Languages that allow preposition stranding (e.g. English) admit DP fragments as answers to interrogatives with preposition stranding, whereas languages that do not admit preposition stranding tend to accept only PP fragments in analogous contexts:

(12) Q: Who was Peter talking to?
    A: Mary.

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4 Merchant (2004) counters that in the problematic cases a different structure might be the source of the fragments. Take for instance the following:

(i) Who watered the plants?
   a. Me.
   b. *I.
(ii) a. *Me watered the plants.
    b. I watered the plants.

Critics point out that the accusative observed in (i-a) is not allowed in the full sentences in (ii). Merchant suggests that the source of fragments like (i-a) might be Hanging Topic sentences like the following:

(iii) Me, I watered the plants.

Casielles (2006), on the other hand, objects that the derivation of (iii) does not necessarily involve focus or movement at all.

5 It is worth pointing out that unlike Morgan’s original treatment, Merchant’s analysis of fragments assumes that the fragments like those in (11) are A’-moved from their argument positions. This, broadly speaking, should not make any difference for Merchant’s argument, since A’-movement is thought not to affect binding effects, at least in English and in simple sentences like the sources of (11). For a useful survey of this further controversial topic see Buring (2005), §12.3.

6 The correlation is not perfect though. Italian (a non-stranding language) is known to accept both PP fragments and the corresponding DP fragments, with a preference for the former. Interestingly, a similar picture emerges from the recent experimental work in Frazier et al. (2009) on German: in the relevant cases, PP fragments were rated maximally acceptable, but the corresponding DP fragments still received fairly good ratings (about 5 in 7 point scale).
Since Merchant’s approach assumes movement (focalization) in the derivation of fragments, it predicts that, all other things being equal, fragments should obey the same locality constraints that affect overt A’ movement. Merchant proceeds indirectly, since eliciting the relevant fragments directly would require island-violating interrogatives like (14):

(14) *Which Balkan language did they hire someone who speaks?

Merchant uses polar interrogatives with an intonation rise on a constituent, which are supposed to implicitly raise a wh-question on the prominent constituent:

(15) A: Did Abby speak the same Balkan language that BEN speaks?
    B: *No, Charlie.

The relative clause in (15A) is an island, so the unacceptability of the fragment in B is evidence that movement out of an island is involved in the derivation of the fragment.

Merchant’s assessment of island sensitivity of fragments is controversial for various reasons. First, different elicitation contexts have been argued to yield acceptable results, despite the island environment (see Barros 2012). Second, it has been long noticed that exchanges like (15) are much more acceptable if the implicitly questioned constituent is in final position. For this reason, Valmala (2007) suggests that some parsing constraint might be at work, rather than syntactic locality. In addition, Valmala notices, the unacceptability seems to be related to the realization of a contrastive/corrective focus, regardless of extraction from islands in (16). Extraction from the complement of a bridge verb is expected to be allowed, yet the fragment in B is unacceptable just like (15B):

(16) A: Didn’t Bill say that Ann suspected JOHN could only speak one Balkan language?
    B: *No, Peter.

Whatever the problem with (16B) is, it cannot be an island violation.

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7 Merchant’s patterns have been reproduced in Italian by Brunetti (2004:109-110). Notice though that some of the objections to be presented below apply to Italian as well.

8 Notice also that even among strong islands the acceptability of fragments seem to vary, at least in some languages. In Italian, fragments assumed to be extracted from relative clauses are fairly acceptable to me, while extraction of fragments from adjunct clauses and from coordinate constituents is much worse. I omit the relevant examples. For more extensive discussion, see Servidio (in prep.).

9 Valmala (2007), but see Morgan (1973) for an analogous remark on closely related examples, ones with sluiced questions. Given the different properties of slucing (Merchant 2001, 2004), such examples are less appropriate for the present discussion.

10 A crucial aspect of Merchant’s global approach to ellipsis is the so-called PF-theory of islands. Slucing proves insensitive to islands (Merchant 2001), which could be taken as evidence against an analysis that involves movement. To accommodate this fact, Merchant resorts to a theory according to which islands are actually a phonological-interface rather than a syntactic phenomenon. Island effects
From the sketchy survey I have provided, it is apparent that the analysis of simple fragments is not trivial. Arguments for and against a deletion approach are available, and it is not obvious how to make a general assessment. In what follows I will argue that polarity fragments can be taken as supporting an analysis à la Merchant.

3. Responding particles

By polarity particles, I mean words like yes and no and their equivalents in other languages. Their prototypic use is to answer polar questions (also called yes/no questions for this very reason). Crosslinguistically, particles are not the only strategy to express polar answers. In some languages, a positive answer is expressed by repeating the main verb of the interrogative (see Holmberg 2001 on Finnish, McCloskey 2011 on Irish). I will leave this strategy aside for the present purposes, and focus on particles. A terminological point first. Particles are also used to reply to assertions, either to confirm them or to reject them. Following Farkas and Bruce (2009), I will call moves that address polar questions “answers” and moves that address assertions “replies”. The more general category encompassing both answers and replies will be called “responding moves” or “responses”.

As observed by Pope (1973), in many languages polarity particles do what Farkas (2011) calls “double duty”: they are used to express both an absolute notion of polarity (a response is either positive or negative) and a relative notion of polarity (a response is either confirming or reversing)\(^1\). In other terms, yes can express both absolute and relative positive polarity, and no can express both absolute and relative negative polarity. Adopting Farkas’s notation, I will write the positive and negative value of absolute polarity as [+\(\)] and [-\(\)], respectively, and I will use [same\(\)] and [rev\(\)] for relative polarity. The default associations conflict whenever the combinations [same, -] and [rev, +] have to be expressed: in principle, in these cases either particle could be used, so variation is expected both within a language and crosslinguistically. Importantly, in some languages (Bernini 1995, Martins 2006), both a yes and no particle can be used in [same, -] responses, that is, to affirmatively answer a negative question or to confirm a negative assertion. If [-\(\)] is expressed, no will be used, if [same\(\)] is expressed, yes will be used\(^12\). This pattern has been called negative neutralization by Kramer and Rawlins (2009).

Apart from typology and from the problem of encoding the relative vs absolute distinction, negative neutralization is interesting because it makes clear that the choice of responding particles is sensitive to the positive or negative polarity of the preceding question or assertion. Since polarity is expressed morphosyntactically,

\(^{11}\) Some languages are reported to express consistently only relative or absolute polarity. Japanese would be an instance of the former type. See Jones (1999).

\(^{12}\) According to Farkas and Roelofsen (2011), markedness considerations influence the choice of the particle in such cases. Among absolute polarity features, [-\(\)] is the marked value, while among relative features the marked one is [rev\(\)]. Thus, in the case of [same, -] the absolute feature [-\(\)] is more marked, so a preference for no is expected. This has been confirmed experimentally for English by Brasoveanu et al. (2011). Interestingly, this preference disappears when the assertion that is replied to has a quantificational subject. The case [rev, +\(\)] is where most variation is observed. Languages like German and French adopt special responding particle to express this feature combination, respectively doch and si.
some scholars (Kramer and Rawlins 2009, Holmberg 2011) have taken neutralization as evidence for a deletion analysis of polarity particles: a responding particle is actually a sentential structure in which a clause identical to the preceding sentence is deleted\(^\text{13}\):

\[
\begin{align*}
(17) \ a & \text{ Is Alfonso not coming to the party?} \\
& \text{[XP Yes [X[E] [Alfonso is not coming]]]}
\end{align*}
\]

As for the syntactic position of particles, two options have been proposed in the literature. Kramer and Rawlins (2009) follow Laka (1994) in assuming a Polarity Phrase in the CP area, in addition to the one or more Polarity Phrases identified in the IP area (Zanuttini 1997). The particles would then be located in this high PolP, and the complement of Pol would be deleted, presumably by means of Merchant’s [E] feature. The second option (Holmberg 2011) is that particles are hosted in a left peripheral focus projection. I will adopt Holmberg’s solution, which I find preferable for two reasons. First, there does not seem to be much independent evidence for the presence of a high PolP. Second, having particles in focus accounts for their informational properties. Responding particles resemble fragment answers as to their interpretation: a polar question can be thought of as asking for the polarity value of a given proposition i.e. whether the proposition is true or its negation is true. Polarity particles provide this information\(^\text{14}\).

4. An analysis of polarity fragments

In the last two sections, two examples of subsentential forms have been introduced, fragment answers and responding particles. Both have been analyzed by some scholars as elliptic structures in which the visible material occupies a focus position in the CP area, whose head is endowed with an [E] feature which triggers deletion of its complement. In this section I turn to polarity fragments. I will argue that these fragments are a more complex subcase of the same kind of structure: they are elliptic structures in which a topic position and a focus position in the CP area are occupied by two different elements, namely an XP and a polarity particle respectively. In §4.1 I briefly introduce two previous analyses of closely related structures of Spanish. In §4.2 some syntactic properties of polarity fragments are discussed, while in §4.3 I show that they behave as expected from sentences with contrastive topics.

\(^{13}\) That polarity particles have (in purely descriptive terms) an anaphoric component is quite uncontroversial. Bernini (1995), like other modern grammars of Italian, call \textit{si} and \textit{no} “profrasi” (sentential proforms). On the other hand, the similarities to pronouns might well be superficial: particles cannot easily refer to objects (propositions) salient in the context, at least not as easily as a pronoun can refer to a salient individual. A deletion analysis is an alternative theoretical strategy to capture the anaphoric nature of polarity particles. It is not, by the way, the only conceivable strategy. Farkas and Roelofsen (2011) adopt a rich semantic ontology that allows to encode the polarity of antecedents without necessarily resorting to their morphosyntactic form. Notice also that a full account of neutralization in terms of deletion is far from trivial, and both Kramer and Rawlins (2009) and Holmberg (2011) introduce additional assumptions concerning the format and the distribution of polarity features. Also, if one were to apply the licensing mechanism of Merchant (2001, 2004) to the ellipsis at hand, interesting consequences would ensue. These topics will be discussed in Servidio (in prep.).

\(^{14}\) The semantic connection between questions and focus and the similarities between polar questions and \textit{wh}-questions are examined by Krifka (2011), that also presents and compares the main current approaches to the semantics of questions. I refer the reader there for details.
4.1. Previous analyses
Depiante (2000) and Vicente (2006) develop different analyses of polarity fragments in Spanish (Juan no). Both discuss these fragments in comparison to cases of negative stripping (vino Pablo, pero no Juan). For reasons of space, I will not deal with stripping. These analyses adopt an ellipsis perspective on polarity fragments: in a fragment of the form XP no, both the XP and the particle occupies left peripheral positions (they are moved there, at least in the case of the XP: as for the particle, a first merge in the relevant position is also considered by Vicente). The TP/IP is deleted, presumably due to the same kind of [E] that triggers deletion in Merchant’s approach.

Both analyses also share the assumption of a high PolP (SigmaP in their terminology) which would host the polarity particle. No focus projection is involved as far as the particle is concerned. On the other hand, Depiante and Vicente differ substantially as for the nature of the left peripheral position of the XP: Depiante proposes that the XP is located in a focus position immediately above SigmaP; Vicente argues that the XP occupies a topic position instead. In what follows I will give some evidence in support of Vicente’s proposal.

4.2. A syntactic proposal
Ideally, one should aim at an analysis of polarity fragments that follows in a natural way from independently formulated analyses of fragment answers and of responding particles. I propose then that the structure of polarity fragment is the following:

\[
(18) \quad \text{a. Chi è venuto alla cena sociale?} \\
\quad \text{Who came to the social dinner?} \\
\text{b. \{CTop Gianni [ Top [FocP no [ Foc [\ldots [IP non è venuto ]]]]]]\}}
\]

As in a Holmberg style analysis of responding particles, the particle occupies a focal position in the CP area. The complement of the focal head is deleted, due to an [E] feature. The position of the particle in polarity fragments, in the lack of contrary

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15 Notice only that in Italian minimal pairs of respective order like Juan no and no Juan do not exist. The Italian equivalent of no Juan employs the sentential negation non rather than the negative particle no. In Italian non is also used for constituent negation. In Spanish all three are omophonous, so it cannot be excluded that in no Juan a constituent negation is actually at work. This would be closer to the analysis of Depiante (2000), that assumes that no is adjoined to the constituent Juan.

16 In the example, the deleted IP is shown to be negative, because the meaning of the answer is the meaning of the negation of the sentence radical in the interrogative. In polarity fragments a polarity particle always expresses an absolute polarity value. (ib) is unacceptable with the relevant interpretation:

(i) a. Gianni non è venuto?
    ‘Has Gianni not come?’
   b. *Gianni sì [= Gianni has not come]

This sets them apart from responding particles. Of course, whatever the details of the licensing of the relevant kind of ellipsis are proposed to be, the structure in (18) must be allowed. On the other hand, notice that just like responding particles, polarity fragments can be used in replies to assertions:

(ii) a. Gianni è venuto, mi hanno detto.
   ‘Gianni has come, I’ve been told’.
   b. Gianni sì [= Gianni has come]
   c. Gianni no [= Gianni has not come]
evidence, could then be the very same position occupied by other material in simple fragments. *Gianni*, on the other hand, is moved from its clause internal position to a contrastive topic projection situated above the focus projection that hosts the particle. Notice that the topicalized XP obligatorily precedes the particle:

(19)  
   a. Chi è venuto alla cena sociale?
   Who came to the social dinner?
   b. *No, Gianni.

Ignoring for the moment some finer grained issues on the nature of the focus projection involved (see section 5 below), the picture is in line with the cartographic analysis of the Italian left periphery (since Rizzi 1997). More precisely, the fact that a contrastive topic obligatorily precedes a left peripheral focus is incorporated in the topic typology proposed by Frascarelli and Hinterhölzl (2007) and Bianchi and Frascarelli (2010):

(20)  
   \[ \text{ShiftP A-Topic [ContrP C-Topic [FocP [FamP G-Topic [FinP IP \ldots ]]]]]} \]

Notice also that in polarity fragments, the particle cannot be followed by a givenness topic (familiar topic) either:

(21)  
   a. Chi è venuto alla cena sociale?
   *Who came at the social dinner?*
   b. ?*Gianni no, alla cena sociale.*

This can be accounted for without any further stipulation. In Merchant’s approach the [E] feature would be on the head whose specifier is occupied by *no*. If this is true, the complement of such head must be deleted. Since in the structure in (20) G-Topics are included in the complement of the Foc head, it follows that G-Topics will never be pronounced in polarity fragments.\(^{17}\)

The restrictions on the cooccurrence between the particle and topics can be taken as evidence for a structural approach to these elliptic structures, in particular for Merchant’s deletion approach. Interestingly, polarity fragments display island sensitivity, which can in turn be taken as evidence in support of a movement derivation. Like Merchant in his discussion of simple fragments (cf. (15) above), I cannot elicit the relevant fragments by using island-violating interrogatives, so I have to resort to implicit questions. The following sentences exemplify extraction from a relative clause and from an adjunct respectively:

(22)  
   a. Conosci i compagni che hanno fatto un regalo a ognuno dei ragazzi?
   ‘Do you know the friends that gave a present to each of the kids?’
   b. #*A Gianni no.

\(^{17}\) There are expressions in which *sì* is followed by an element, the two being separated by an intonational break. A felicitous context would be the following:

(i)  
   a. È venuto GIANNI?
   ‘Did GIANNI come?’
   b. sì, Gianni.

In these examples though *Gianni* cannot be taken to be a familiar topic/G-topic. The polar question in (i.a) has a prominence on *Gianni*, which evokes an implicit *wh*-question *Who came?*. The two components of the fragment in (i.b) could then be thought of as answering the explicit polar question and the implicit *wh*-question, in turn.
(23) a. Avverti tua madre prima di andare da qualche parte?
   ‘Do you tell your mother before you go somewhere?’
   b. #In palestra no.
   To the gym no

The polarity fragments above, even though well formed in themselves, are quite marginal when used in the crucial contexts with the desired meaning. In Merchant’s original examples, the island effects were explained as the result of the movement of an XP to a focus projection across an island. In the present case, a polarity particle is supposed to be in focus. I will make no claim about whether the particle is first merged in the CP area or is moved there. Irrespective of this issue, the island effects are expected if the contrastive topic can be thought of as an instance of Clitic Left Dislocation, which is known to be island sensitive (Cinque 1990). Disregarding the particle, the fragment in (22b) would be assimilated to the degraded (24a), as opposed to the non-island violating (24b):

(24) a. ?*A Gianni, non conosco l’amico che (gli) ha fatto un regalo.
   To Gianni not know the friend that to-him has made a present
   b. A Gianni, non so chi (gli) abbia fatto un regalo.
   ‘To Gianni, I don’t know who gave a present.’

In this subsection I have argued that initial XPs in polarity fragments displays some syntactic properties that are expected under the assumption that they are contrastive topics moved to the left periphery. In the next subsection I will argue that also their interpretive properties are as expected of contrastive topics.

4.2. Interpretive properties
As mentioned above, Depiante (2000) proposes that in fragments of the type XP no the XP is in focus, whereas Vicente (2006) proposes that the XP is topicalized instead. I agree with Vicente, but I believe that his arguments to show the topical nature of the XP are not decisive. He shows that XP no fragments do not exhibit an exhaustive interpretation or existential presuppositions, two purported properties of foci. However, these tests are too weak. First, exhaustivity is at best a feature of some kinds of foci (e.g. Hungarian preverbal foci), not of all foci: mere information foci have been shown not to have an exhaustive interpretation, and some so-called contrastive foci have no exhaustive interpretation either (see Brunetti 2009 for a comparison between Hungarian and Italian). To illustrate this, take the following polarity fragment:

(26) a. Chi è venuto alla cena sociale?
   Who came to the social dinner?
   b. Gianni no.
   It is true that Gianni no does not presupposes or entail that Gianni was the only one who did not come to the social dinner (i.e. that everybody else came); but neither does a simple fragment (27b):

(27) a. Chi non è venuto alla cena sociale?
   Who did not come to the social dinner?
   b. Gianni. (E forse qualcun altro, non so.)
   Gianni. (And possibly somebody else, I don’t know.)
It is also true that the fragment in (26b) does not presupposes that somebody came: it is compatible with a situation such that the social dinner was deserted by everybody. But even though focus has often been attributed existential presuppositions in the literature, this view is controversial. Rooth (1996), in a survey of the empirical facts and the theories of focus, suggests that while constructions like clefts in English can reasonably be held to bear an existential presupposition, the same does not necessarily holds of other focal constructions.

On the other hand, the topical nature of the XP in polarity fragment can be made apparent by resorting to an analysis of contrastive topics along the lines of Büring (2003). Büring’s treatment of topics builds on the Alternative Semantics (AS) for focus. AS assumes that constituents have both an ordinary semantic value and a focus value, which includes the semantic values obtained by replacing the focused constituent with alternatives of the same semantic type. At the sentential level, a focus value is thus a set of propositions:

(28)  a. $[[\text{Gianni read } \text{Ulysses}_F]]^f = \{ [[\text{Gianni read } \text{Ulysses}]], [[\text{Gianni read } \text{The Trial}]], \text{Gianni read } \text{The Magic Mountain}] \ldots \}$

b. $[[\text{What novel did Gianni read?}]]$

Formal theories of questions and focus assume that a tight relation exists between narrow focus and questions (see e.g. Roberts 1996, Krifka 2001). This is encoded in a requirement of congruence. Informally, the focused portion of a declarative with narrow focus must correspond to the $wh$-word in an interrogative, and the question expressed by that interrogative must be under discussion. The declarative in (28a) is thus congruent to the question in (28b). Under somewhat simplistic assumptions, the focus value of (28a) and the meaning of the question in (28b) are actually identical. Büring introduces a further notion, the $C$(ontrastive)$T$(opic)-value. CT-values are obtained from focus values by replacing the topic marked constituent with alternatives of the same semantic types. The resulting object is a set of sets of propositions, which can also be thought of as a set of questions:

(29)  a. $[[\text{Gianni}_{CT} \text{read } \text{Ulysses}_F]]^t = \{ \{ [[\text{Gianni read } \text{Ulysses}]],[[\text{Gianni read } \text{The Trial}]], [[\text{Gianni read } \text{The Magic Mountain}] \ldots \}, \{[[\text{Maria read } \text{Ulysses}]], [[\text{Maria read } \text{The Trial}]], [[\text{Maria read } \text{The Magic Mountain}] \ldots \} \}, \{[[\text{Luca read } \text{Ulysses}]], [[\text{Luca read } \text{The Trial}]], [[\text{Luca read } \text{The Magic Mountain}] \ldots \} \ldots \} =$

b. $\{ [[\text{What novel did Gianni read?}}], [[\text{What novel did Maria read?}}], [[\text{What novel did Luca read?}}] \ldots \}$

A requirement of CT-congruence is introduced to the effect that a sentence with a contrastive topic must answer a question that belongs to a set of questions that are part of a strategy to answer a superquestion currently under discussion. In the present example, a sentence like “$\text{Gianni}_{CT} \text{read } \text{Ulysses}_F$” can be used in the context of a strategy to answer a superquestion that can be paraphrased as the multiple $wh$-question “Who read what novel?”.

I take the polarity particles in polarity fragments to be focused. Concretely, it is a polarity value that is in focus. This means that the use of a polarity particle requires that a polar question be under discussion (“on the Table”, in Farkas’s terminology). The focus value of a structure consisting of a polarity particle is roughly as follows:

18 The proper definition of congruence, like of other technical notions employed in this Section, would require some apparatus and different assumptions depending on whether an Alternative Semantics approach or a Structured Meanings approach to focus is adopted. I refer the reader to Krifka (2001) for a comparison between the two and a critical discussion of many details of implementation.
(30) a. Gianni è venuto alla cena sociale?
   Did Gianni come at the social dinner?
   b. Sì (= Gianni è venuto alla cena sociale).
   c. \[\text{Sì (= Gianni è venuto alla cena sociale)}\] \[= \{ [\text{Gianni è venuto alla cena sociale}], [\text{Gianni non è venuto alla cena sociale}] \}\]

A contrastive topic is expected to trigger introduce a further level of (non-polar) alternatives:

(31) a. Gianni è venuto alla cena sociale?
   Did Gianni come at the social dinner?
   b. Gianni Sì (= Gianni\textsubscript{CT} è venuto alla cena sociale).
   c. \[\text{Gianni Sì (= Gianni\textsubscript{CT} è venuto alla cena sociale)}\] \[= \{ [\text{Gianni è venuto alla cena sociale}], [\text{Gianni non è venuto alla cena sociale}] \}, [\text{Maria è venuta alla cena sociale}], [\text{Maria non è venuta alla cena sociale}] \}, [\text{Luca è venuto alla cena sociale}], [\text{Luca non è venuto alla cena sociale}] \} \ldots \}

So the polarity fragment \textit{Gianni sì} can be thought of as answering the question \textit{Did Gianni come at the dinner?} which is part of a strategy to answer superquestions like \textit{Who came at the dinner?} or \textit{Did the guys come at the dinner?}. Büring’s CT-congruence requirement has consequences on the felicity of polarity fragments that support the thesis of Vicente and mine that polarity fragments include a contrastive topic. The use of CT marking presupposes, via CT-congruence, a set of questions all parts of a strategy to answer a superquestion. This explains the following contrast:

(33) a. I dottorandi sono venuti alla cena sociale?
   ‘Did the grad students come to the social dinner?’
   b. #Gianni.
   ‘Gianni.’
   c. Gianni sì.
   ‘Gianni came.’

The simple fragment in (32b) consists of a focused \textit{Gianni}. For it to be felicitous, a \textit{wh}-question must be under discussion like e.g. \textit{Who came to the social dinner?}. But it is actually the polar question in (33a) that is under discussion, whence the infelicity of (33b). In (33c), instead, the polarity fragment is felicitous. Because of its contrastive topic \textit{Gianni}, it presupposes a set of questions of the form \textit{Did X come at the social dinner?}, where \textit{X} varies over the set of grad students. These questions taken together can be thought of as a strategy to answer the question under discussion in (33a). This difference in discourse felicity is what expected if \textit{Gianni} is a topic, as Vicente mantains, instead of a focus.

Notice also that my further claim that the polarity particles are focused makes polarity fragments fully parallel to the structures studied by Büring, which include a contrastive topic and a focus (in the case at hand, a polarity value is in focus).

5. Implications and residual issues

Polarity particles are interesting in the wider context of the analysis of fragments and ellipsis in general, because they provide subtle but clear evidence for an analysis that derives them from full sentences via movement and deletion. Valmala (2007), in discussing some complex fragments including a contrastive topic and a focus, argues for a nonsentential analysis by arguing that discourse requirement are sufficient to yield the correct interpretation of the fragments. This is reasonable up to a point, since as discussed above, topics and foci inherently restrict the felicity of fragments to certain discourse contexts. However, the strong ordering restrictions between the
particles and topics, exemplified above, do not follow from any pragmatic constraint; on the contrary, they follow naturally from a picture of the left periphery of clause structure that includes a contrastive topic position followed by a focus position, followed in turn by one or more familiar topic positions. For Valmala the only alternative is to stipulate a constraint, possibly a prosodic one, in order to account for the observed restrictions.

While this result sounds as good news for researchers in cartography and for supporters of Merchant’s theory of fragments alike, a potential problem has to be addressed. Casielles (2006) and Valmala (2007) criticize Merchant’s assumption that a left peripheral focus projection is involved. To the extent that the existence of a left peripheral focus position has been proven crosslinguistically, it has been claimed to host foci other than information foci: in Hungarian, the identificational focus of Kiss (1997), and in Italian, contrastive focus (Rizzi 1997). Merchant instead assumes that this projection hosts mere information foci, used to answer neutral wh-questions.

I will restrict my attention to Italian. In a number of works, prominently Rizzi (1997), a left peripheral focus has been exemplified by exchanges like the following:

(34) a. Mi hanno detto che è venuto Mario.
   ‘I’ve been told that Mario came’.
b. GIANNI è venuto, non Mario.
   ‘GIANNI came, not Mario’.

The focus in (34b) has been called a contrastive focus. The label “contrastive focus” has been used in different ways (Molnár 2002). The contrastive focus of the type exemplified in (34) is actually “contrastive” in the strongest possible sense: it expresses a correction of a previous statement. Such left peripheral foci are reported to be infelicitous in answers to wh-questions where information foci are expected:

(35) a. Chi è venuto ieri sera?
   ‘Who came yesterday night?’.
b. #GIANNI è venuto.

The import of the above mentioned objection should be apparent by now. To the best of our knowledge, a simple fragment in Merchant’s analysis would occupy the same position as GIANNI in (35b). Still, a fragment is a perfectly fine answer to a wh-question, actually, it is the preferred answer:

(36) a. Chi è venuto ieri sera?
   b. Gianni.

A proposed exception to the latter restriction is when a sentence with a left peripheral focus is used to answer a D-linked question (Kiss 1998 but cf. Brunetti 2004):

(i) a. Chi ha rotto il vaso?
   ‘Who broke the vase?’
b. #MARIA ha rotto il vaso.
   ‘MARIA broke the vase’.
(ii) a. Chi di voi due ha rotto il vaso?
   ‘Which of you two has broken the vase?’
b. MARIA ha rotto il vaso.

The contrast is a subtle one. Cruschina (2011) argues that in these examples the focus is actually contrastive, since D-linked wh-elements pattern with contrastive foci in many different ways. To the extent that this might be maintained, this might lend further support to my remarks below.
Brunetti (2004), who adopts Merchant’s analysis, argues that the respective positions of *Gianni* in (35b) and (36b) are indeed one and the same. Also, this position would not be inherently contrastive. The infelicity of (35b) would originate from the redundancy of pronouncing the background of the sentence (*è venuto*) rather than omitting it, it being given. In other words, the infelicity of (35b) would be on a par with the awkwardness of (37b) as opposed to a fragment answer (37c):

(37)  
a. Cosa ha vinto Gianni?
    ‘What did Gianni win?’

b. (#)Gianni ha vinto una maglietta.
    ‘Gianni won a t-shirt’.

c. Una maglietta.
    ‘A t-shirt’.

Assimilating the two latter cases appears as too radical a move. Full answers with a left peripheral focus like (35b) sound somewhat worse to some speakers (including the present author) than full sentences without a left peripheral focus like (37b). Also, on the basis of systematic comparisons between Italian and some close Romance varieties (especially Sicilian), Cruschina (2011) shows that left peripheral information foci, widely attested in Sicilian, differ syntactically from left peripheral contrastive foci. He ends up proposing the following cartography of the left periphery:

(38) [ TopP [ CFoc [ TopP [ IFoc […] ]] ]]

According to Cruschina, in sentences with a left dislocated focus in Sicilian either CFoc or IFoc is involved. In Italian, while contrastive foci typically move to the left periphery, information foci normally do not.

The objection raised by Casielles and Valmala still stands, as far as simple fragments are concerned. I have no decisive counterargument to offer. It is worth pointing out though that the objection is less of a problem for polarity fragments. What distinguishes contrastive foci (however defined) from information foci is a number of further properties, in particular, membership in a finite set of salient alternatives. But all of the defining properties often proposed for contrastive focus are trivially satisfied by polarity focus: the polarity values are only two, always the same and, presumably, made salient by the very raising of a polar question under discussion. So, polarity focus is trivially contrastive. Polarity values are also mutually exclusive, so an assertion that expresses polarity focus always satisfies exhaustivity. One can then maintain that polarity particles are trivial contrastive foci, such that their discourse requirements are always met.

20 Notice though that Cruschina admits, following Brunetti, that some kinds of non-contrastive foci move to the left periphery in Italian. This is the case of quantificational phrases, that can be fronted somewhat liberally in Italian, and of what he calls mirative focus. This he takes to be an information focus that has an unexpected feeling to it. A rigorous definition of the category at hand proves elusive though. See Cruschina (2011) for details.

21 So in a way they are also always D-linked. See note 19 above.

22 Alternatively, one could propose that they are actually in Cruschina’s IFoc. This would be the most cautious option, if one is not convinced that the impoverished nature of the focus domain of polarities is enough to make the responding particles contrastive. But the issue would arise as to why Cruschina’s IFoc is not exploited by ordinary information foci in Italian.
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Polarity particles in Italian fragment answers

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