

# **Bare Argument Ellipsis and Information Structure**

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# **Bare Argument Ellipsis and Information Structure**

This dissertation presents a cross-linguistic study of three elliptical predicate constructions: (a) stripping, (b) negative-contrast, and (c) yes/no ellipsis, which are all argued to fall under the scope of a more general type of ellipsis, Bare Argument Ellipsis. From an interpretive point of view, in all three constructions, the constituent that is present in the second conjunct ('the remnant') has a characteristic information role. In yes/no ellipsis, the remnant functions as a contrastive topic whereas in stripping and negative-contrast the remnant is a focused constituent. The latter two constructions are further differentiated with regard to the semantic characteristics of Focus. Based on the assumption that Focus is not uniform, it is shown that stripping involves narrow information focus whereas negative-contrast involves contrastive focus.

From a syntactic point of view, I argue that Bare Argument Ellipsis involves overt movement of the remnant to the left periphery of the clause, followed by IP deletion. The PF-deletion approach is extended to all three constructions. Following Rizzi's (1997) split-CP hypothesis, it is proposed that the remnant in yes/no ellipsis moves to TopP, a functional projection in the left periphery of the clause that encodes contrastive topics, by the process of Clitic Left Dislocation. Contrastive topicalization of the remnant forces narrow focus on the polarity marker.

Regarding stripping and negative-contrast, it is argued that the semantic difference between narrow information and contrastive focus is directly related to the focus projection that hosts the remnant. Following recent proposals that Focus should be split into several projections, I show that the remnant in negative-contrast ends up in F<sub>1</sub>P, a focus projection marked for contrastiveness whereas the remnant in stripping moves to a lower F<sub>2</sub>P, which simply encodes new information.

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# **Declaration and statement of copyright**

## **Declaration**

No part of the material contained within this thesis has been previously submitted for a degree at Newcastle University or any other university.

## **Statement of copyright**

The copyright of this thesis rests with the author. No quotation from it should be published without her prior written consent and information derived from it should be acknowledged.

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## Chapter 1: Overview of the dissertation

Ellipsis is the phenomenon where canonical sentences lack one or more syntactic constituents, whose meaning is fully interpreted by the speaker either by the use of previous linguistic material or previous discourse context. This mismatch between form and meaning has been central to the investigation of elliptical phenomena, as it is used to bring empirical weight to important issues of linguistic theory, such as the precise definition of syntactic identity, the relation of syntax and semantics and the abstractness of grammar.

Different types of ellipsis have been under the realm of investigation, the most important of which is *verb-phrase ellipsis* (henceforth VPE) where the VP of a clause is missing under identity with a previous parallel clause (Fiengo & May 1994, Hankamer & Sag 1976, Lobeck 1995)

- (1) Mary loves her new job and Sarah does too [loves her new job]. [VPE]

Other elliptical constructions involve *gapping* where the head verb is omitted leaving a sentence-internal gap (Lobeck 1995), as in (2) and *sluicing* in (3) where the sentential part of a constituent question is elided, leaving only the wh-phrase (Merchant 2001).

- (2) Sue went to London and Peter to Paris. [Gapping]

- (3) Peter is learning a foreign language but I don't know which.

This dissertation deals with three elliptical constructions that can be grouped under the name of *Bare Argument Ellipsis* (henceforth BAE); in particular I look at *stripping* and *negative-contrast* in English, Romance and Greek and *yes/no ellipsis* in Romance and Greek. The constructions are exemplified below in (4), (5), and (6) respectively.

- (4) Sammy played the piano but not Lisa.

- (5) Max speaks German, not French.

- (6) O Petros latrevi ti thalasa ala i Maria ohi. [Greek]  
the Petros-NOM loves-3SG the sea-ACC but the Maria-NOM not  
'Peter loves the sea but Maria doesn't.'

Stripping, as seen in (4), is a widely attested elliptical construction in which the second conjunct of a coordinate structure is missing leaving behind only one constituent and usually a negative particle or an adverb (Hankamer & Sag 1076). The difference between stripping in (4) and negative-contrast in (5) is the lack of the conjunction in the latter. Yes/no ellipsis, exemplified in (6), is an elliptical construction similar to the other two with the difference that the polarity marker follows rather than precedes the remnant. It is also known as *TP-Ellipsis* (Laka 1990) and usually it is not classified under BAE. Instead it is considered to be equivalent to English VPE due to certain properties that the two constructions share. However, since all three constructions involve two conjoined clauses, with the second clause containing only one constituent and the negative particle, I will include all of them under the term BAE. I will refer to the first clause as the *antecedent clause* and the second the *elided clause*. The pronounced element of the elided clause, I will call the *remnant* and the constituent of the antecedent clause that the remnant corresponds to I will call the *correlate*.

### ***1.1 Traditional views on ellipsis***

As mentioned previously, work on ellipsis has been mainly focused on VPE in English and *sluicing* shown in (7) and (8) respectively.

(7) Sue went to Paris but Paul didn't [e].

(8) Someone was fired but we don't know who [e].

An intriguing question in the literature on ellipsis that has led to fruitful research and a great deal of controversy between researchers is whether the missing material in (7) and (8) contains a full syntactic structure or not. One school of thought proposes that elliptical material is syntactically represented but it is deleted at a certain point in the derivation of the sentence. This is the phonological-deletion (henceforth PF) theory (Kennedy and Merchant 2000, Kennedy 2003, Lasnik 1999, Merchant 2001, 2004). According to this theory, an elliptical sentence like (7) above, is base generated as in (9) with a fully realized VP. A deletion rule applies and as a result (10) is obtained:

(9) Sue went to Paris but Paul didn't go to Paris.

(10) Sue went to Paris but Paul didn't.

Among the arguments underlying the assumption that the elliptical material in (7) and (8) contains a full syntactic structure are locality constraints and connectivity effects (Hankamer 1979, Merchant 2001). Regarding the former, it has been shown that the elided VP can contain wh-traces ((11a)) and also that these wh-traces are subject to a locality condition (Haik 1987); (11b) is ruled out because of the Complex NP Constraint (Ross 1967). Regarding the latter, one strong connectivity effect involves case: if the remnant wh-phrase in (12) must bear the case that its counterpart would bear in a fully sentential structure, then the ungrammaticality of (12) can be straightforwardly explained by whatever grammatical constraints regulate case marking of wh-phrases in general.

(11) a. John read everything which<sub>i</sub> Bill did t<sub>i</sub>.

b. \*John read everything which<sub>i</sub> Bill believes the claim that he did t<sub>i</sub>.

(12) \*The police found someone's car, but they wouldn't tell us who.

On the other hand, the semantic approach to ellipsis posits no unpronounced syntactic structure at all; in a sentence such as (7) the elliptical material is base-generated empty and its meaning can simply be recovered from the antecedent clause or the previous discourse context through general mechanisms of recovery of meaning from discourse (Culicover and Jackendoff 2005, Dalrymple et al. 1991, Hardt 1993). One of the arguments that has been put forward in favour of this approach is that the syntactic identity condition that is assumed to constrain deletion under the syntactic approach is questionable; in (13) a syntactic copy of the antecedent *have any friends* would result in ungrammaticality; the meaning of the second conjunct seems to be 'have some friends'.

(13) John doesn't have any friends but Bill does.

A third approach which lies in the middle between the semantic and the PF-approach is the LF-copy theory (Chung et al. 1995, Lobeck 1995). This theory posits that the elliptical material consists of an empty category drawn from the lexicon which subsequently is replaced by a full syntactic structure copied from the antecedent clause at the level of Logical Form (LF).

### 1.1.1 Previous analyses of stripping, negative-contrast and yes/no ellipsis

In most literature on ellipsis, stripping and negative-contrast have received a different analysis from VPE and sluicing due to the fact that they seem to exhibit very particular properties; for example they can neither occur in subordinate environments nor do they have a pragmatic antecedent (Hankamer and Sag 1976). This is shown in (14) and (15) respectively.

(14) \*Bill went to the store, because not Susan.

(15) [Sag plays *William Overture* on recorder]  
Hankamer: #Yeah, but not very well.

(Hankamer & Sag 1976: (47))

These different characteristics have lead researchers to two different proposals. According to the first, stripping and negative-contrast involve ellipsis but they must be analysed under a different approach than the one applied to VPE and sluicing (Lobeck 1995, Winkler 2005). The other proposal posits that stripping and negative-contrast do not involve clausal ellipsis but simply coordination of NPs (Bosque 1984, McCawley 1988, 1991, Reinhart 1991).

In contrast to stripping and negative-contrast, yes/no ellipsis has been generally analyzed on a par with VPE due to the similarities that it shares with the latter; e.g. it is allowed in subordinate environments and it is able to have a linguistic antecedent in a separate utterance in the discourse<sup>1</sup>. This is shown in (16) and (17) respectively.

(16) María pensaba ir pero mencionó que Juan no.  
María was thinking leave-INF, but mentioned-3SG that Juan not.  
'María was thinking of leaving but she mentioned that Juan wasn't.'

---

<sup>1</sup> It will be seen in chapter 4 that stripping as well has the ability to have an intersentential antecedent.

(17) A: Juan leyó el libro.  
Juan read-3SG the book  
'Juan read the book.'

B: Pedro no.  
Peter not  
'Peter didn't.'

### 1.1.2 Ellipsis and Information Structure

More recently, research on ellipsis has also focused on the interaction of ellipsis and Information Structure. In general terms, *Information Structure* (or Information Packaging) refers to how the sentence is structured with respect to the informational flow of the discourse and more specifically with the linguistic encoding of the notions of *topic* and *focus* (Halliday 1967).

(18) Q: What did Mary buy?

A1: Mary bought A CAR.

A2: #MARY bought a car.

In (18A1) the object *a car* which corresponds to the wh-phrase in the question provides the missing information. This constituent, which is prosodically highlighted—indicated by small caps—is referred to in the literature as the focus of the sentence. The rest of the sentence is intonationally unmarked and constitutes information that has already been established in the discourse and it is common ground between the speaker and the hearer. The sentence-initial constituent, *Mary*, is often considered the topic of the sentence and in a way indicates what the sentence is about. Sentence (18A2) has exactly the same propositional content as (18A1) but it is not a felicitous answer to the question. The infelicity does not depend on the truth-conditions of the answer but instead on the fact that the information structure of the answer is not the appropriate one raised by the expectations of the question.

With respect to ellipsis, it is generally shown that some elliptical constructions require not only syntactic and semantic parallelism between the elided and the antecedent clause, but also a parallel focus structure. Winkler (2005) shows that, in gapping, the deleted elements

must be anaphorically given whereas the remnants must occur in a contrastive relation with their correlates.

(19) Q: Who can talk to whom?

A: The assistant manager can talk to the manager and the manager to the general manager.

(Winkler 2005: (25))

In (19) what seems to be missing in the second conjunct is the redundant information *can talk*. The constituents that are retained are those that constitute new information.

The same idea has been proposed for stripping and negative-contrast where the remnant and its correlate in the antecedent clause are contrastively focused (Depiante 2000). On the other hand, for yes/no ellipsis, it has been suggested that the remnant is not restrained by information structure (Busquets 2005, 2006).

## ***1.2 Goals of this dissertation***

The purpose of this dissertation is twofold: first to show that stripping and negative-contrast must be distinguished as autonomous elliptical constructions with respect to information structure; their different status can be attributed to the different type of focus. Secondly, I will show that yes/no ellipsis is more closely connected to stripping and negative-contrast than previously thought and thus the idea that it is equivalent to VPE can no longer be maintained. More specifically, it will be shown that the remnant is not free regarding its information structure as it is in VPE in English but instead it functions as a contrastive topic. Adopting the PF-deletion approach, I propose that all three constructions are best analyzed in terms of IP deletion with prior syntactic displacement of the remnant to the left periphery of the clause.

### **1.2.1 Structure of the Dissertation**

In Chapter 2, I discuss previous approaches to Bare Argument Ellipsis that have been proposed in the literature and present their shortcomings.

In Chapter 3, I concentrate on the notion of Information Structure and its connection with ellipsis. In particular, I argue that Information Structure plays a key role in helping distinguishing between stripping and negative-contrast; more specifically, I provide evidence

in support of the view that the type of focus on the remnant is different; stripping involves narrow information focus whereas in negative-contrast the focused remnant carries an additional contrastive reading.

In Chapter 4, I present evidence that all three constructions under question underlyingly involve a full syntactic structure and it is not the case that the meaning is simply recovered via semantic mechanisms. Furthermore, I look more closely at the LF-copying and the PF-deletion approaches and I show why the former does not suffice to account for the elliptical constructions under discussion. Finally, I take issue with the fact that yes/no ellipsis is analyzed under a pro-form analysis, based merely on the fact that it shares certain similarities with English VPE (López 1999, 2000, López and Winkler 2000).

In Chapter 5, I propose a PF-deletion analysis of yes/no ellipsis within the realm of the Minimalist Program (Chomsky 1995). More specifically it is suggested that the remnant starts in its thematic position within the IP and from that position it dislocates to the left periphery through the strategy known as Clitic Left Dislocation (Cinque 1990). Assuming Rizzi's (1997) hierarchy of functional projections, the remnant merges with TopP, a functional projection in the Comp domain, designated for topics. Movement for the remnant is obligatory in order to acquire a contrastive interpretation. It is also proposed that contrastive topicalization forces narrow focus on the negative polarity marker which sits at SpecPolP.

In chapter 6, I defend the idea that the difference between stripping and negative-contrast with respect to the type of focus should also be reflected in the syntax of the two constructions. Assuming the feature-driven approach to focus according to which focus is directly represented in the syntactic representation (Chomsky 1977, Jackendoff 1972, Kiss 1998, Rizzi 1997), the remnant in negative-contrast and stripping moves to the left periphery of the clause for focus requirements; however, the target site of the movement is different in each case. Based on proposals for multiple focus projections (Benincà and Poletto 2004), it is argued that the remnant in negative-contrast merges with F<sub>1</sub>P (Rizzi's original FP) where it is associated with a contrastive interpretation. On the other hand, the remnant in stripping merges with F<sub>2</sub>P, a functional projection in the C-domain, situated lower than F<sub>1</sub>P where it is interpreted as narrow non-contrastive focus. The negative particle functions as a focusing adverb that is base-generated in SpecPolP, a functional projection which hosts polarity constituents and whose head Pol<sup>0</sup> must select a FP for its complement.

Chapter 7 presents the conclusions.

## Chapter 2: Previous approaches to Bare Argument Ellipsis

### 2.1 Introduction

The aim of this chapter is to discuss previous approaches to stripping/negative-contrast and present the problems that these approaches have.

Since the 70s, research on ellipsis has been focussing on identifying the various elliptical constructions, their licensing and interpretation. One of these constructions is *Bare Argument Ellipsis/Stripping* (henceforth BAE) where the second conjunct of a coordinated clause has been stripped of all its elements except for one constituent, as shown in (1).

- (1) John likes swimming but not surfing.

BAE was taken to be a distinct construction from the well-studied cases of VPE and sluicing. Williams (1977) for example analyses stripping and gapping by means of rules of Sentence Grammar and VPE and sluicing by positing rules of Discourse Grammar. One of the arguments for this distinction is that the former but not the latter are sensitive to Ross's (1967) Complex NP Constraint.

- (2) \*The man who likes opera met the woman who not very much.

- (3) The man who likes meat met the woman who doesn't.

This distinction between stripping/gapping and VPE/sluicing has been kept in one way or another in the ellipsis literature; researchers often offer different analyses for the two constructions; stripping and gapping seem to be best analysed under non-movement approaches (Chao 1987) or non-ellipsis approaches (McCawley 1991, Reinhart 1991).

In addition to stripping and negative/contrast, I also investigate a third construction, yes/no ellipsis, also included under BAE.

- (4) Juan leyó el libro pero María no.  
Juan read the book but Maria not  
'Juan read the book but Maria didn't.'



The characteristic of this construction is that the negation must follow the remnant instead of preceding it. Research takes this construction to be a proper instance of VPE (Bosque 1984); the differences with English style VPE are explained due to certain parametric variations (Laka 1990, López 1999, 2000, López and Winkler 2000).

In this chapter I will present some empirical evidence that raises some substantial problems for any analysis that treats yes/no ellipsis and English VPE on a par. This evidence reveals some important syntactic differences between yes/no ellipsis and VPE which lead to the conclusion that not only can the VPE analysis not be maintained but also that yes/no ellipsis must be analysed on a par with stripping and negative-contrast. All three constructions exhibit similar syntactic constraints and some very specific discourse functions. It will be shown that the data can be better accounted for within an analysis that takes yes/no ellipsis and stripping to involve TP-deletion with prior syntactic displacement of the remnant to the left periphery of the clause.

## **2.2 *Description of the data***

### **2.2.1 Stripping and Negative-Contrast**

Hankamer and Sag (1976) give a characterization of stripping as ‘a rule that deletes everything in a clause under identity with corresponding parts of a preceding clause, except for one constituent (and sometimes a clause-initial adverb or negative’ (Hankamer and Sag 1976: 409). More recently stripping has been analysed in Lobeck (1995), Lappin (1996), Johnson (1996) and Depiante (2000).

Stripping can have any type of remnant: a subject, an object, a prepositional phrase. This is shown in (5).

(5) a. John likes swimming and Paul too.

b. John likes swimming but not surfing.

Stripping, in contrast to VPE, is an elliptical construction with a wide crosslinguistic distribution.

- (6) Marija ljubiti zvonit' Ivanu a ne Petru. [Russian]  
 Maria likes to call Ivan but not Peter (Mcshane 2000: 201)  
 'Maria likes to call Ivan but not Peter.'
- (7) La France semble prête à déployer des soldats au Liban, [French]  
 France seems ready to deploy soldiers to Liban,  
 mais pas les Etats-Unis.  
 but not the United States.  
 'France seems ready to deploy soldiers to Liban but not the United States.'
- (8) Maria lubi Martę, a nie Annę. [Polish]<sup>1</sup>  
 Maria likes Marta-ACC but not Anna-ACC  
 'Maria likes Marta but not Anna.'
- (9) weil die Anna die Aufgabe lösen kann, aber nicht der Jan. [German]  
 because the Anna the problem solve could but not the Jan.  
 'because Anna could solve the problem, but not Peter.'  
 (Winkler 2005: (116a))

Apart from stripping, some researchers identify negative-contrast as a separate type of BAE (Busquets 2005, 2006). One of the differences between the two constructions is the lack of the conjunction.

- (10)a. John has been to Paris, not to Rome.
- b. Va venir al cinema la Marta, no en Miquel.  
 will-3SG come-INF to-the cinema the Martha, not the Miquel  
 It was Martha who came to the cinema, not Miquel.'

Stripping and negative-contrast show some particular syntactic characteristics. Lobeck (1995) shows that they cannot function in subordinate clauses. This is the reason why they have also been classified as 'ellipsis in conjunction' or 'coordinate ellipsis.' The contrast with VPE is shown in (11a, b).

- (11)a. \*John left early, because not Mary.
- b. John had to go and buy the groceries, because his mother couldn't.

---

<sup>1</sup> I would like to thank Eva Klingvall for the Polish data.

VPE also conforms to the Backwards Anaphora Constraint (Lobeck 1995), where the ellipsis can precede but not command its antecedent; (12) is well formed because the ellipsis is contained in the subordinate clause but (13), due to its inability to appear in subordinate environments, cannot tolerate the BAC.

(12) Because Mary didn't, John left early.

(13) \*Because not Mary, John left early.

Finally another main difference between stripping and VPE is that the former is sensitive to islands (Reinhart 1991) where the latter seems not to be.

(14) \*The fact that some politician has resigned got much publicity, but not the defence minister.

(Reinhart 1991: (37))

### 2.2.2 Yes/No Ellipsis

The third construction, yes/no ellipsis, also has a wide crosslinguistic distribution; it can be found in many unrelated languages, such as Romance languages, German, Greek, Russian, Polish etc. Some examples are provided below in (15).

(15)a. La Maria va anar als USA, però el seu germà no. [Catalan]  
 the Maria went to USA, but the his brother not.  
 'Maria went to USA but his brother didn't.'

(Busquets 2006: (5b))

b. Maria lubi Marte, a Anny nie. [Polish]  
 Maria likes Marta-ACC but Anna-GEN not.  
 'Maria likes Marte but Anna doesn't.'

c. Petja prišel, a Vasja net. [Russian]  
 Peter came, but Vasja no  
 'Peter came, but Vasja didn't.'

(Kazenin 2000: (8a))

- d. Q: Ta paidia diavasan to kainourio biblio pou tous [Greek]  
 the children-NOM read-3PL the new book that them-ACC  
 agorases;  
 bought-2SG  
 ‘Did the children read the new book that you bought them?’
- A: I Maria to diavase ala o Markos ohi.  
 the Maria-NOM it-CL read-3SG but the Markos-NOM not.  
 ‘Maria read it but Markos didn’t.’

However, yes/no ellipsis is not available in English; (16) with only the presence of the sentential negation is ungrammatical and it can only be well formed with the presence of an auxiliary (in which case we have VPE).

- (16) \*Mary read the books but Peter not.

Although yes/no ellipsis shares with stripping and negative-contrast certain similarities, such as the presence of the conjunction *but*, the presence of one remnant and the negative polarity marker, in the majority of the ellipsis literature, it has been analysed on a par with VPE due to the fact that it seems to exhibit some of the properties of VPE. It is allowed in subordinate clauses, as shown in (17) and under certain circumstances it can precede its antecedent, as in (18) (Bosque 1984, López 2000).

- (17) María pensaba ir pero mencionó que Juan no.  
 Mary was-3SG thinking leave-INF, but (she) mentioned-3SG that Juan not.  
 ‘Maria was thinking of leaving but she mentioned that Juan wasn’t.’
- (18) Luis dice que no, pero Pedro habla inglés con bastante fluidez.  
 Luis say-3SG that no, but Pedro speaks-3SG English with enough fluency  
 ‘Luis says that he doesn’t, but Pedro speaks English with fluency.’

Yes/no ellipsis is frequent in coordinated structures but it can also be found intrasententially. The two possibilities are illustrated in (19a, b).

- (19) a. Juan confía en María, pero yo no.  
 Juan trust-3SG in María, but I not  
 ‘Juan trusts María, but I don’t.’

b. A: Juan confía en María.  
Juan trust-3SG in María  
'Juan trusts María.'

B: Yo no.  
I not  
'I don't.'

(Bosque 1984: (3))

The analysis of yes/no ellipsis as VPE is mainly due to Laka's (1990) influential analysis of the construction in Basque and the suggestion that in Basque some preverbal negative markers, such as *no*, are able to license ellipsis. Laka treats those markers as emphatic polarity markers which occupy the head of a Sigma Phrase ( $\Sigma$ P), a functional projection that hosts affirmative and negative polarity in Basque. According to Laka, the unavailability of yes/no ellipsis in English is due to the fact that only the auxiliary can occupy the head of  $\Sigma$ P and therefore it is the only element capable of licensing ellipsis.

### 2.3 *Previous accounts of stripping, negative-contrast and yes/no ellipsis*

#### 2.3.1 Non elliptical approaches to stripping and negative-contrast

##### 2.3.1.1 Hudson (1976a, b)/McCawley (1988, 1991)

A nonelliptical approach to stripping/ BAE is the one proposed by Hudson (1976a, 1976b). Hudson puts stripping in the same category as gapping under the rule of 'Conjunct Postposing'<sup>2</sup>, where any number of non-initial conjuncts is extracted to the right of the clause. According to this analysis, the stripping examples are taken to be coordinated XPs, with the second conjunct undergoing rightwards movement; (20a) is thus derived from (20b).

(20)a. John's novel was published, but not his poems.

b. [John's novel but not his poems] was published.

This movement falls under the well-known phenomenon of extraposition, where an element is transferred to the right periphery of the clause. This is exemplified in (21); in (21a) the PP *about this book*, has been extraposed to the right end of the clause. The underlying order is as shown in (21b).

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<sup>2</sup> Hudson refers to stripping as 'split coordination'.

(21)a. Many reviews appeared already of this book.

b. Many reviews of this book appeared already.

A similar approach that does not presuppose any underlying full sentential structure in the second conjunct is proposed by McCawley (1988). McCawley sees the remnant in stripping as a discontinuous constituent which is nevertheless part of a coordinated NP. He puts forwards two arguments to show that stripping is not a result of a deletion process of an entire clause leaving behind one remnant.

The first argument has to do with the position of *either* in the clause. He presupposes the generalization that *either* is the first part of the conjunction *either...or*, occurring immediately before the first conjunct. In order for the coordination to be complete, both coordinated parts must be present, as shown in (22).

(22) John gave either Mary or Lucy flowers.

(23) John gave either Mary flowers, or Lucy.

McCawley, thus, argues that, if in (23), the remnant phrase *or Lucy* was not part of the phrasal coordination *either Mary or Lucy* at some stage of the derivation, the sentence would be ungrammatical.

The other argument is based on his remark that stripping seems not to be sensitive to the Coordinate Structure Constraint (Ross 1967). Since deletion processes, such as gapping, are generally sensitive to the Coordinate Structure Constraint, stripping, McCawley concludes, cannot be derived by a deletion process. The examples he puts forward are shown in (24) and (25) for gapping and stripping respectively.

(24) \*Who ordered spaghetti, and Jane a bowl of minestrone?

(25) To which country does John send letters by email, but not parcels?

(McCawley 1988: 281)

However, his approach to negative-contrast is different (McCawley, 1991). Although he holds on to the idea that negative-contrast does not involve deletion, he argues that this

construction derives from a coordinated structure where Conjunction Reduction has applied and then extraposition. Thus, for McCawley (26) is derived from (27).

(26) John drank coffee, not tea.

(27) John drank not tea but coffee.

The derivation of (26) includes several steps: first of all, the underlying structure of (27) is a coordination of two positive clauses embedded into a larger S. The two conjuncts are identical apart from one contrasting constituent (*tea, coffee*). Conjunction Reduction applies to this structure, removing the identical part from the two conjuncts and raising it across-the-board to the left of S. The output of this process will be (27). The next step then, in order to derive the negative-contrast construction of (26), will be to reverse the order of the constituents and finally delete *but*.

#### 2.3.1.1.1. Problems

Starting with the extraposition analysis proposed by Hudson, arguments against the analysis have already been presented in Reinhart (1991). Reinhart discusses BAE as a subtype of what she dubs ‘Elliptic Conjunctions’ (EC) which include stripping, exception conjunctions and comparative ellipsis. Examples of the three constructions are given in (28), (29) and (30) respectively.

(28) John won a scholarship, but not Mary.

(29) Everyone enjoyed the party, except Susan.

(30) Syntax is more interesting than phonology.

Comparing those constructions to extraposition, she shows that extraposition is far more restricted and sensitive to syntactic constraints than EC is. For example, extraposition is clause-bound whereas EC does not have to be. The contrast is shown in (28) and (29).

(31) ?John agreed to tell us many stories, when we asked him, about his childhood.

(32) John did not agree to tell us anything, when we asked him, except stories of his childhood.

According to Reinhart, the *when* adverbial phrase is taken to mark the end of the matrix clause in (31, 32). If so, then the two phrases *about his childhood* and *except stories of his childhood* are taken to be outside the matrix clause. For (31) this does not seem possible but for (32) it is. This suggests that the movement in (32) can be unbounded.

Furthermore, Reinhart argues that semantically extraposition is more restricted; it can occur only with weak determiners and not strong ones, as the contrast in (33) and (34) shows.

(33) Few books appeared already about Greek history.

(34) \*Most books appeared already about Greek history.

EC can also occur with weak and strong determiners, as seen in (35) below.

(35) Everyone liked the food except your mother.

It is generally assumed that stripping obeys syntactic islands. However, as was mentioned previously, McCawley (1988) argues against a non-deletion approach by positing that stripping is not sensitive to Ross's Coordinate Structure Constraint. He then compares stripping with gapping, which he assumes that involves a deletion process. The sentences are repeated below.

(36)a. To which country does John send letters by email, but not parcels? [stripping]

b. \*Who ordered spaghetti, and Jane a bowl of minestrone? [gapping]

However, there is a difference between (36a) and (36b) that McCawley does not acknowledge; in the stripping example in (36a) we have across-the-board movement; the PP *to which country* is extracted from both conjuncts and thus no violation of the constraint is predicted to arise anyway. On the other hand, in the gapping in (36b), the constituent that



undergoes wh-movement belongs only to the antecedent clause and correctly a violation arises. If we try to construct a stripping example parallel to (36b), where the wh-phrase involves the correlate of the remnant which is removed only from the antecedent clause, we would have (37) which clearly violates the Coordinate Structure Constraint.

(37) \*What did John send by email, but not parcels?

The ungrammaticality of (37) suggests that McCawley's argument does not hold and that stripping is sensitive to the constraint; it thus follows that a deletion analysis cannot be precluded.

A further counterargument against the idea that stripping involves conjunction of XPs is presented in Merchant (2004). Merchant shows that sentence adverbs can sometimes precede the remnant, as in (38).

(38) John knows how to speak French and possibly George too.

If one accepts the conjunction of NPs, the presence of the adverb cannot be explained.

Furthermore, if the correlate and the remnant form a conjoined NP, we cannot explain why the conjunction is not always necessary. McCawley simply mentions that *but* is deleted without offering further explanations.

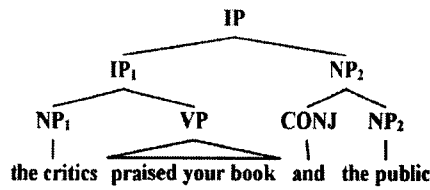
### 2.3.1.2 Reinhart (1991)

The two analyses considered so far argue in favour of base-generation of the remnant inside the antecedent clause and subsequent movement to the right of the clause. The analysis presented next proposes exactly the opposite; base generation of the remnant in its surface position and rightwards movement of the correlate in order to adjoin to the remnant.

As seen earlier, Reinhart (1991) discusses BAE as a subtype of Elliptic Conjunctions. The basic claim put forward is that EC does not involve clausal ellipsis because there is no syntactic structure in the second conjunct, except the remnant, which could be deleted at PF. Reinhart suggests that the remnant is base-generated and adjoined at the IP; (40) gives the structure for (39).

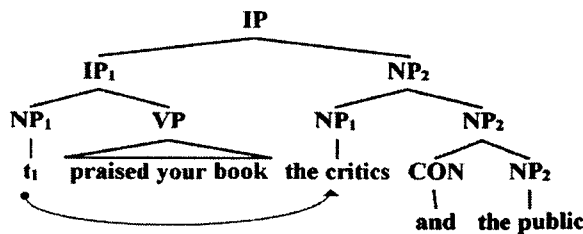
(39) The critics praised your book and the public too.

(40)



The above surface structure is not acceptable as it stands, as the remnant NP does not adjoin to another NP but to IP<sub>1</sub>, and thus it violates the generalisation that conjunction requires categorical identity between the conjuncts. According to Reinhart, the relevant coordinated structure is formed at LF via Quantifier Raising (henceforth QR) of the correlate and its subsequent adjunction to the remnant. The new structure will amount to the conjunction of two NPs, which is perfectly grammatical. The movement is shown schematically in (41).

(41)



The new coordinated NP binds a variable in the clause, as in (42).

(42) the critics and the public ( $\lambda x$ ) (x liked your book)

Reinhart's basic objection to an elliptical approach to stripping is that the material that would be missing from the second conjunct cannot form a constituent.

(43) John hates football but Peter doesn't [<sub>VP</sub> e].

(44) Someone invited Peter but we don't know who [<sub>IP</sub> e].

(45) John hates football but not basketball.

In contrast to the VPE example in (43) and the sluicing example in (44), where the material that is missing is a constituent (a VP and an IP respectively), what seems to be missing in (45) is the non constituent sequence subject NP, I and V. Non-constituent deletion is highly undesirable because there is no way of ruling out sources that would lead to ungrammatical results.

Reinhart also reviews Pesetsky's (1982) solution to unconstrained deletion that has been independently employed for gapping. The analysis, applied to stripping, suggests that there is indeed a conjunct clause, with a base-generated remnant and an empty IP node. The correlate in the antecedent clause adjoins by QR to the IP and then IP<sub>1</sub>, a constituent, is copied to the second conjunct. The steps are shown below in (46).

(46)a. [<sub>IP</sub>football [<sub>IP</sub><sub>1</sub> John hates t<sub>1</sub>]

b. [<sub>IP</sub><sub>1</sub> John hates t<sub>1</sub>] but not [<sub>CP</sub> basketball [<sub>IP</sub><sub>2</sub>]

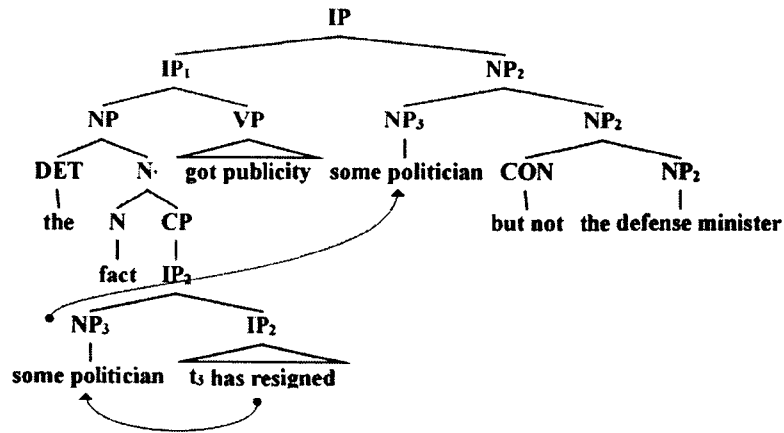
Reinhart objects that such an analysis, which treats stripping on a par with sluicing, cannot explain why the former elliptical construction is more restricted than the latter, i.e. why stripping is restricted only to coordinated structures and is sensitive to island constraints, as shown in (47) and (48) respectively.

(47) \*Some of my friends have visited Paris but I'm certain that not Peter.

(48) \*The fact that some politician has resigned got much publicity, but not the defence minister.

Reinhart argues that these properties of stripping follow naturally under her approach. For example, the ungrammaticality of (48) is explained due to the fact that the correlate rises to adjoin to IP<sub>2</sub> and further to the remnant NP so that the conjunction can be interpretable (as shown below in (49)). However, the second movement violates the sentential subject constraint. On the other hand, in sluicing only the first movement is necessary and consequently, no island violation is expected to occur.

(49)



### 2.3.1.2.1 Problems

Reinhart argues that in stripping, the correlate adjoins via QR the base-generated remnant in the second conjunct at the level of LF. The coordinated XP binds a variable in the IP. An argument against this approach comes from Brody (1995). Brody observes that the conjoined structure formed at LF cannot be maintained since there are examples where the construed LF quantifier cannot take scope over a matrix indefinite, as in (50) which has the reading of (a) rather than (b).

(50) Someone will admit that we stole everything, if you insist, except the car.

(Brody 1995: (37a))

a. 'Someone will admit that everything except the car we stole, if you insist.'

(Brody 1995: (37b))

b. 'For everything except the car, someone will admit that we stole it, if you insist.'

(Brody 1995: (37c))

Lechner (2001, 2004), in his analysis of comparative constructions, also shows that Reinhart's approach runs into problems. According to Lechner, while in English comparative constructions, the remnant is base-generated in the right part of the clause, in German it is intraposed within the clause. This is shown in (51).

- (51) weil mehr Leute eine Zeitung als ein Buch gekauft haben  
since more people a newspaper than a book bought have  
'since more people bought a newspaper than a book'

(Lechner 2001: (7b))

A strong counterargument against Reinhart's analysis is found in Merchant (2003). Merchant points out (following Yoon 1996) that, with predicates such as *be dirty*, the conjoined phrase can be true i) if the predicate holds only of one member of the conjoined entities, as in (52a) and ii) the predicate holds of both members of the coordination ('split interpretation'), as in (52b).

- (52) The plates and the bowls are still dirty.

a. The plates and the bowls are still dirty.

b. The plates are dirty and the bowls are dirty.

(Merchant 2003: (12))

However, if we turn to the stripping example, (53) can only have the split interpretation, i.e. the truth conditions of (52b) and not (52a).

- (53) The plates are dirty, and the bowls too.

(Merchant 2003: (13))

Reinhart's approach, which assumes a conjoined XP, cannot offer an explanation for the nonavailability of the second reading in stripping.

Preposition stranding requirements offer a further argument. Depiante (2000) shows that languages which do not allow preposition stranding in movement do not allow it in stripping either. An example is given in (54) from Greek, which does not allow preposition stranding.

- (54) Milisa me ton Yorgo, ala ohi me ti Maria/\*ala ohi ti Maria.  
talked-1SG with-the-ACC George, but not with-the-ACC Maria/\*but not the-ACC Maria.  
'I talked with John, but not Mary.'

If the fragment was part of a conjoined DP, as Reinhart suggests, the ungrammaticality in the sentence above shouldn't occur in the first place since in coordinated construction, DP

coordination under a preposition in situ is perfectly grammatical (Giannakidou 2000), as in (55).

- (55) Milisa me ton Yorgo kai tin Maria.  
talked-1SG with the-ACC George and the-ACC Maria  
'I spoke with George and Mary.'

Another problem for Reinhart's approach is that it cannot explain the case requirements imposed on the remnant. As it will be shown in detail in chapter 4, in stripping, the remnant must bear the same morphological case as its counterpart would have in a full sentential structure (Merchant 2004). This is evident in Greek which is a fully inflectional language (Holton et al. 1997).

- (56) Irthe o Yanis, ohi o Yorgo / \*ohi ton Yorgo  
came-3SG the Yanis-NOM, not the Yorgos-NOM / \*not the Yorgos-ACC  
'It was Yanis that came, not George.'

- (57) Zitisa na do ton Yani, ohi ton Yorgo / \*ohi o Yorgos.  
asked-1SG to see the Yani-ACC, not the Yorgo-ACC / \*not the Yorgos-NOM  
'It was John who I asked to see, not George.'

Reinhart, focusing only on English data, simply mentions that the case is inherited in the remnant without providing any further details.

Finally, there are two more properties of stripping that posit a problem for any analysis that treats stripping as coordination of XPs. The first problem is that the second conjunct of a stripping construction systematically includes, apart from the remnant, another particle, whether it is negation, an additive particle such as *also* or a focusing adverb, as it was shown in section 2.2. It is difficult to see how a non-deletion analysis can account for the position of these particles within a coordinated XP. Reinhart's analysis systematically neglects to show these particles in the derivation of stripping.

Another setback for the aforementioned approaches is that sloppy identity is possible in stripping; a pronoun in the elliptical material can be bound by the subject of the second conjunct. Sloppy identity is a characteristic property of elliptical constructions such as VPE (Fiengo and May 1994)<sup>3</sup>.

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<sup>3</sup> Although it has to be mentioned that there is no consensus as to whether sloppy identity can be considered a reliable criterion for the presence of syntactic structure since it is shown that deep anaphors exhibit the same property, as in (i).

(58) Mary loves her new dress but not Susan.

### 2.3.2 Elliptical approaches to stripping, negative-contrast and yes/no ellipsis

#### 2.3.2.1 López (1999, 2000), López and Winkler (2000)

One of the most influential and detailed analyses of yes/no ellipsis is proposed by López (1999, 2000) and López and Winkler (2000) who analyse Spanish yes/no ellipsis on a par with English style VPE, due to the similarities that the two constructions exhibit (see section 2.2). Following the pro-form theory (Hardt 1993, Lobeck 1995), they argue that in both Spanish and English the empty VP is a proform that is licensed by the head  $\Sigma$  which incorporates negation and emphatic affirmation (Laka 1990). The different outputs of VPE in Spanish and English are due to a parametric variation; Spanish auxiliaries do not carry the feature  $[\Sigma]$  whereas English auxiliaries do.

More specifically, López, working within the minimalist framework (Chomsky 1995), argues that in both languages the empty VP, which he assumes is a proform ( $\text{pro}(v)$ ), has the feature  $[\Sigma]$  which needs to be checked against the head  $\Sigma$  in order to be licensed. In English, the proform ( $\text{pro}(v)$ ) merges with the auxiliary forming AuxP and  $\text{pro}(v)$  adjoins to Aux; thus, the  $[\Sigma]$  feature of  $\text{pro}(v)$  percolates to the complex auxiliary head. Subsequently, AuxP merges with  $\Sigma^0$  so that the latter checks its  $[V]$  feature. The negative adverb *not* is found in Spec $\Sigma$ P. The fact that *not* is not the head of  $\Sigma$ P accounts for its inability to license the ellipsis, as can be seen from the ungrammaticality of (59).

(59) \*John saw the movie but Peter not.

On the other hand, in Spanish, the auxiliary does not have the feature  $[\Sigma]$  and therefore if  $\text{pro}(v)$  adjoins to the auxiliary, the feature  $[\Sigma]$  of  $\text{pro}(v)$  cannot percolate to the complex auxiliary head; consequently, when the complex auxiliary head will merge with  $\Sigma^0$ , the feature  $[\Sigma]$  of  $\text{pro}(v)$  will be too embedded to participate in feature checking with the head  $\Sigma^0$ . Instead, the  $[\Sigma]$  feature of the head  $\Sigma$  is satisfied by the merging of the negative and affirmative polarity items *no/sí* which adjoin to  $\Sigma^0$  and license the ellipsis. The syntactic representation of VPE in Spanish and English are given in (60b) and (61b) respectively.

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(i) Max kissed his friend and Oscar did it too.

(60)a. Juan ha visto la película pero yo no.  
 Juan has seen the movie but I not  
 ‘Juan has seen the movie but I haven’t.’

b. Juan ha visto la película pero [ $\Sigma$ P yo [ $\Sigma$ P [ $\Sigma^0$  no [pro(v)]]]].

(61)a. John has seen the movie but I haven’t.

b. John has seen the movie but I [ $\Sigma$ P not [ $\Sigma^0$   $\Sigma^0$  have pro(v)] [ $A_{aux}$ P [ $A_{aux}$  t ] t]].

According to López, this analysis explains why in yes/no ellipsis, the remnant can be any category whereas in English it must be the subject. In English, after the auxiliary is merged with the head  $\Sigma^0$ , it moves to IP to satisfy the tense features and the remnant moves to spec of IP to satisfy the case and  $\varphi$ -features. On the other hand, since the auxiliary in Spanish is not present, there are no  $\varphi$ -features that need to be checked and  $\Sigma$ P does not need to merge with the head I. Since IP is not present the remnant must be adjoined either to CP or  $\Sigma$ P. López concludes that the subject-remnant is base-generated and adjoined to  $\Sigma$ P and has the function of a contrastive topic. Since any category can be a topic, it thus follows that any category can be the remnant. In English however, the spec of IP does not function as a position for topics and that explains why in VPE, only subjects can be the remnants of the ellipsis.

### 2.3.2.1.1 Problems

Although the above analysis has the interesting consequence of limiting the difference between yes/no ellipsis and English VPE to parametric variation of the features of the auxiliary in English and in Spanish, it still has certain shortcomings, the first of which concerns the presence of the negative marker *not*. As López himself acknowledges the presence of *not* in spec of  $\Sigma$ P (see (61b)) cannot be justified, since all the featural requirements of the head  $\Sigma$  are satisfied by the adjunction of the complex auxiliary head  $Aux^0$  to  $\Sigma^0$ .

An additional problem for the analysis concerns the remnant as a contrastive topic. The analysis does not explain why there should be a difference in the function of the remnant in English VPE and Spanish yes/no ellipsis. As it stands, the only reason for the position of the remnant as a topic adjoined to  $\Sigma$ P in Spanish is that the auxiliary is not present and



therefore no  $\varphi$ -features need to be checked against the head I. Although I agree with López's idea that the remnant in yes/no ellipsis must be considered a contrastive topic, there are some problems with the idea that contrastive topics are base-generated to  $\Sigma$ P; for example, base-generation of the remnant can neither explain the case requirements imposed on the remnant nor the sensitivity to islands that yes/no ellipsis exhibits. The analysis I present in chapter 5 deals with these problems.

Finally the thesis that auxiliaries in Spanish do not have the  $[\Sigma]$  feature is quite arbitrary. The two arguments that López puts forward in order to show that auxiliaries in Spanish do not have the  $[\Sigma]$  feature are that a) they cannot be stressed emphatically as their English counterparts b) they cannot be used as an answer to a question.

- (62) \*Juan no ha visto la película pero yo la *he* visto.  
 Juan not has-3SG seen the movie but I it have-1SG seen.  
 'Juan has not seen the movies but I have seen it.'

(López 1999: (30a))

- (63) Q: ¿Has leído 'Campos de Londres'?  
 have-2SG read 'Campos de Londres'  
 'Have you read Campos de Londres?.'

A1: \*(Yo) he.  
 (I) Have-1SG  
 'I have.'

A2: \*(Yo) no he.  
 (1) Have-1SG

(López 1999: (30c))

However, this argument is quite circular since (63) instantiates VPE. Therefore López is arguing that Spanish does not have English style VPE because auxiliaries do not have the  $[\Sigma]$  feature and the evidence that they do not have the  $[\Sigma]$  feature is because they don't allow VPE.

A result of López's analysis is that the head  $\Sigma$  must always be overt in order to be able to license the ellipsis; the negative particle *no* in Spanish has the status of a head and therefore licenses ellipsis. Therefore the analysis predicts that negative particles such as *nunca* ('never') which behaves as an XP cannot license the ellipsis. However, the data seem to contradict this assumption since yes/no ellipsis with *nunca* is possible (see Depiante 2000).

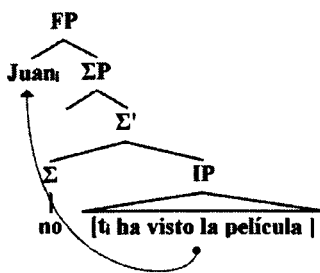
2.3.2.2 Depiante (2000)

Depiante (2000) follows the deletion approach for yes/no ellipsis and stripping. She argues that both elliptical constructions involve a full sentential structure in the second conjunct which is subsequently deleted at PF; the remnant is syntactically displaced in the left periphery of the clause before deletion of the IP takes place. Contra López (1999, 2000) she follows Laka (1990) in assuming that there is a functional projection hosting emphatic polarity items, both affirmative and negative, called  $\Sigma$ igmaP and that there can be a variation in the hierarchical order of the functional projections; in Spanish the head  $\Sigma$  selects for IP whereas in English, it selects for VP. The derivation then of yes/no ellipsis in (64) and VPE in (65) is shown in (66a) and (66b) respectively.

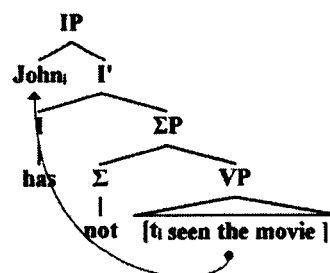
(64) Yo he visto la película pero Juan no.  
 I have-1SG seen the movie but Juan not  
 'I have seen the movie but Juan hasn't.'

(65) I have seen the movie but John hasn't.

(66) a.



b.



According to Depiante's analysis, the remnant in Spanish yes/no ellipsis is a contrastively focused element that moves to FP, a functional projection encoding contrastive focus, from within an IP position in order to satisfy focus requirements. After movement of the remnant has taken place, the IP is deleted. In order for the ΣP not to be left stranded, insertion of the emphatic particles *no* takes place. Depiante follows Bošković's (2000) analysis of negation in Italian according to which NEG is a PF affix that needs an overt negative element as its host. According to Bošković, this explains the well-known contrast found in Italian negation.

(67) a. \*(Non) ha parlato nessuno.  
 Not has-3SG spoken nobody  
 'Noone has spoken.'

b. Nessuno (\*non) ha parlato.  
 nobody not has-3SG spoken  
 'Noone has spoken.'

In (67b) the presence of the negative marker *non* is not tolerated since the affixal properties of NEG have already been satisfied by the preverbal negative polarity item *nessuno*. In (67a) though, the negative polarity item occurs postverbally and thus the NEG properties cannot be satisfied; *non* needs to be inserted. Following this line of investigation, Depiante argues that after the deletion has takes place the affixal properties of the  $\Sigma$ P have not been satisfied and therefore the emphatic marker *no* must be inserted.

According to Depiante's analysis then, the reason that yes/no ellipsis is not acceptable in English is due to the position of the  $\Sigma$ P; since it is found below IP, the auxiliary must already be present in order to support the tense affix. It is impossible for *not* to do that because it is not a PF affix in English.

Regarding stripping, Depiante proposes essentially the same analysis as for yes/no ellipsis; the remnant is a focused constituent that moves to FP for focus requirements before deletion of IP takes place. The analysis is uniform for English and Spanish. What seems to distinguish stripping from yes/no ellipsis is that in the former, the negative marker forms a constituent with the remnant and therefore it is the entire negated constituent that moves to FP. The representation of a stripping example such as (68) is shown in (69).

(68) Ana leyó El Quijote pero no Hamlet.  
 Ana read-3SG El Quijote but not Hamlet  
 'Ana has read El Quijote but not Hamlet.'



### 2.3.2.2.1 Problems

Depiante's insightful approach to stripping and yes/no ellipsis offers a nice solution to the problem of non-constituent deletion noticed by Reinhart. The overt movement of the remnant to a functional projection higher than IP, leaves behind the whole IP to be deleted. Furthermore the movement approach naturally explains the island effects observed in the two constructions, since overt movement is sensitive to islands. As it was pointed out previously, López's pro-form analysis of yes/no ellipsis was unable to account for the island effects. Furthermore, a deletion approach is able to explain the case requirements imposed on the remnant, as it will be explained in chapter 4 and 5.

However, there are certain problems with this analysis that have to be pointed out. First of all, the difference between yes/no ellipsis and stripping in Spanish is not clear; both elliptical phenomena seem to involve movement of the remnant for focus requirements and deletion of IP. The only difference seems to be that stripping involves constituent negation. However, the idea of constituent negation is not explained in the analysis. In chapter 6, I will present several arguments that stripping involves sentential negation. For example, it will be shown there that stripping respects Klima's (1964) tests for sentential negation, e.g. by permitting *either*-conjoining.

- (70) sentential: Mary isn't a happy person and John isn't either.  
constituent: \*Mary is a not happy person and John isn't either.  
stripping: Jan is happy, but not Mary, and John isn't either.

Furthermore it is not at all certain that the remnant in yes/no ellipsis can be analysed as a focused constituent, as Depiante's analysis suggests. López and Winkler (2000) show that it is not possible for the remnant in yes/no ellipsis to be accompanied by focus particles. This is shown in (71).

- (71) \*Todos han venidos y sólo María no.  
all-PL have-3SG-PL come and only Maria no.  
'Everybody has come except Maria.'

The above sentence should have been grammatical if the remnant was a focused constituent attracted by the focus operator *sólo*.

The status of the remnant in yes/no ellipsis is also emphasized in Bosque (1984). Bosque compares yes/no ellipsis and stripping in Spanish and claims that in the latter, the remnant in the second conjunct must be parallel to the focused constituent in the antecedent clause. In Spanish focused constituents occupy the rightmost position of the clause. Therefore, as an answer to the question *Quien ha venido?* one would use (72b) rather than (72a).

(72) Q: *Quien ha venido?*  
 who has-3SG come  
 ‘Who has come?’

a. *Juan ha venido.*  
 Juan has-3SG come  
 ‘Juan has come.’

b. *Ha venido Juan.*  
 has-3SG come Juan  
 ‘Juan has come.’

In (72a) *Juan* tends to be interpreted as the topic of the sentence, what Bosque calls ‘thema.’ Consider now (73).

(73) a. *Ha venido Juan, pero no Pedro.*  
 has-3SG come Juan, but not Pedro  
 ‘Juan has come, but not Pedro.’

b. \**Juan ha venido, pero no Pedro.*  
 Juan has-3SG come, but not Pedro

c. *Juan ha venido, pero Pedro no.*  
 Juan has-3SG come, but Pedro no  
 ‘Juan has come but Pedro hasn’t.’

When the subject of the antecedent clause is focused, as its rightmost position in (73a) indicates, stripping is well formed. On the other hand, when the subject is at the leftmost position and functions as a topic, Bosque finds that stripping is not acceptable, but yes/no ellipsis is perfectly fine.

Additionally, from a pragmatic point of view, the remnant in yes/no ellipsis does not seem to express contrastive focus. It is well known in the literature (Drübig 2003, Kiss 1998, Rizzi 1997) that contrastive focus entails some notion of ‘correction’, in the sense that an

element is sharply contrasted to an alternative explicitly mentioned in the previous discourse. This is shown in (74) where the subject *Peter* is introduced in the discourse as an alternative to *John*, which was explicitly introduced in the question.

(74) A: Did John eat the pizza?

B: No. PETER ate the pizza (not John).

Finally, Depiante's analysis fails to capture the contrast between stripping and negative-contrast<sup>4</sup>. As it will be shown in the next chapter, there are certain discourse and syntactic environments where the two constructions are not interchangeable.

(75)a. John was born in England but not in London.

b. \*John was born in England, not in London.

(76)a. Susan didn't want to go the party, not Mary.

b. \*Susan didn't want to go to the party, but not Mary.

### 2.3.2.3 Winkler (2005)

A more recent approach is the one proposed by Winkler (2005). Winkler proposes that yes/no ellipsis and stripping belong to the same type of ellipsis, Sentence-Bound Ellipsis, whose function is to isolate contrastive foci. VPE, on the other hand, belongs to Discourse Bound Ellipsis, whose function is to mark the elliptical material as anaphoric or given<sup>5</sup>.

Regarding stripping and yes/no ellipsis, she follows Nunes's (2001) sideward movement analysis, according to which a given constituent can be copied and merged with an independent syntactic object; deletion is considered as chain reduction of the lower copies which is triggered by linearization in the phonological component.

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<sup>4</sup> In her analysis, Depiante does not distinguish between the two constructions.

<sup>5</sup> Winkler's classification is reminiscent of Williams's distinction between Discourse Grammar and Sentence Grammar mentioned in the introduction. For more details see Williams (1977).

More specifically, Winkler proposes that the derivation of a stripping structure, such as (77) proceeds in the following way. Assuming that (78) is the initial numeration underlying (77), where only one instance of the main verb is involved, the derivation has the following steps. At some point during the derivation, the syntactic objects K and L are obtained (step 79a)<sup>6</sup>. The subject of vP<sub>1</sub>, *Susan*, is a contrastive focus and thus moves out from vP<sub>1</sub> to the spec of vP<sub>2</sub> which Winkler assumes is the place for contrastive foci (step 79b) whereas the negative particle occurs in the head of ΣP. The syntactic object obtained in (79b) cannot merge directly with L because conjuncts have to be of the same type; therefore, vP<sub>1</sub> with the trace of the moved subject is copied from K and merges with L (sideward movement), giving the syntactic object M (step 79c). Then, M merges with K giving the output of (79d). At this point the lower copies are deleted for linearization reasons and the subject *Mary* moves to SpecTP, as in step (79e).

(77) *Mary can play the violin but not Susan.*

(78) [*Mary*<sup>1</sup>, *can*<sup>1</sup>, *play*<sup>1</sup>, *the violin*<sup>1</sup>, *but*<sup>1</sup>, *not*<sup>1</sup>, *Susan*<sup>1</sup>]

(79) a. K = [<sub>ConjP</sub> *but* [<sub>vP1</sub> *Susan*<sup>1</sup> *can*<sup>1</sup> *play*<sup>1</sup> *the violin*<sup>1</sup>]  
 L = [<sub>DP</sub> *Mary*<sup>1</sup>]

b. [<sub>ConjP</sub> *but* [<sub>ΣP</sub> *not*<sup>1</sup> [<sub>vP2</sub> *Susan*<sup>2</sup> [<sub>vP1</sub> *t*<sup>1</sup> *can*<sup>1</sup> *play*<sup>1</sup> *the violin*<sup>1</sup>]]]

c. M = [<sub>ΣP</sub> [<sub>ΣP</sub> [<sub>vP3</sub> *Mary*<sup>1</sup> [<sub>vP1</sub> *t*<sup>1</sup> *can*<sup>2</sup> *play*<sup>2</sup> *the violin*<sup>2</sup>]]]]]

d. P = [<sub>ΣP</sub> [<sub>ΣP</sub> [<sub>vP3</sub> *Mary*<sup>1</sup> [<sub>vP1</sub> *t*<sup>1</sup> *can*<sup>2</sup> *play*<sup>2</sup> *the violin*<sup>2</sup>]]]]] [<sub>ConjP</sub> *but* [<sub>ΣP</sub> *not*<sup>1</sup> [<sub>vP2</sub> *Susan*<sup>2</sup> [<sub>vP1</sub> *t*<sup>1</sup> *can*<sup>1</sup> *play*<sup>1</sup> *the violin*<sup>1</sup>]]]

e. [<sub>TP</sub> *Mary*<sup>2</sup> [<sub>ΣP</sub> [<sub>ΣP</sub> [<sub>vP3</sub> *Mary*<sup>1</sup> [<sub>vP1</sub> *t*<sup>1</sup> *can*<sup>2</sup> *play*<sup>2</sup> *the violin*<sup>2</sup>]]]]] [<sub>ConjP</sub> *but* [<sub>ΣP</sub> *not*<sup>1</sup> [<sub>vP2</sub> *Susan*<sup>2</sup> [<sub>vP1</sub> *t*<sup>1</sup> *can*<sup>1</sup> *play*<sup>1</sup> *the violin*<sup>1</sup>]]]

A similar analysis is proposed for yes/no ellipsis with the difference that in yes/no ellipsis we have coordination of TPs and the remnant occurs in specTP where it receives a contrastive topic interpretation. Thus the structure for a yes/no ellipsis sentence, such as the one in (82), would be along the lines of (81).

<sup>6</sup> I will use superscripted indices to indicate copies.

- (80) I Maria pezi kithara ala o Petros ohi.  
 the Maria-NOM plays-3SG guitar but the Peter-NOM not.  
 ‘Maria plays the guitar but Peter doesn’t.’

- (81) [TP [I Maria<sup>2</sup> [<sub>ΣP</sub> [<sub>VP2</sub> i-Maria<sup>1</sup> [<sub>VP1</sub> t<sup>1</sup> pezi<sup>2</sup> kithara<sup>2</sup>]]]]] [<sub>ConjP</sub> ala [TP o Petros<sup>2</sup> [<sub>ΣP</sub> not<sup>1</sup> [<sub>ΣP</sub> [<sub>VP1</sub> t<sup>1</sup> ~~can<sup>1</sup> play<sup>1</sup> the violin<sup>1</sup>~~]]]]]]

### 2.3.2.3.1 Problems

Winkler’s analysis is different than the standard PF-deletion approach, as advocated by Depiante for stripping, in the sense that the conjuncts are not created independently with the second one being deleted at PF; instead the vP is only created once and copied by sideward movement to the antecedent clause. Then, the independently existing process of chain reduction deletes the lower copy of the vP. Her approach is reminiscent of Johnson’s across-the-board movement analysis of gapping (Johnson 1996, Johnson 2006).

However, a closer look at the steps in (79) suggests that traces are used more like variables than actual copies. The problematic stage for the sideward movement analysis is step (79e) where chain reduction takes place. The steps are repeated below with proper copies instead of traces.

- (82) [TP Mary<sup>2</sup> [<sub>ΣP</sub> [<sub>ΣP</sub> [<sub>VP3</sub> Mary<sup>1</sup> [<sub>VP1</sub> Susan<sup>3</sup> can<sup>2</sup> play<sup>2</sup> the violin<sup>2</sup>]]]]] [<sub>ConjP</sub> but [<sub>ΣP</sub> not<sup>1</sup> [<sub>VP2</sub> Susan<sup>2</sup> [<sub>VP1</sub> ~~S<sup>1</sup> can<sup>1</sup> play<sup>1</sup> the violin<sup>1</sup>~~]]]]

Following Nunes’s analysis, the legitimate chains that can be formed are:

- (83) CH<sub>1</sub> = (Mary<sup>2</sup>, Mary<sup>1</sup>)  
 CH<sub>1</sub> = (can<sup>2</sup>, can<sup>1</sup>)  
 CH<sub>1</sub> = (play<sup>2</sup>, play<sup>1</sup>)  
 CH<sub>1</sub> = (the violin<sup>2</sup>, the violin<sup>1</sup>)  
 CH<sub>1</sub> = (Susan<sup>2</sup>, Susan<sup>1</sup>)

The problem stems from the fact that no chain can be formed holding between *Susan*<sup>3</sup> and either *Susan*<sup>2</sup> or *Susan*<sup>1</sup>. In order for a chain to be determined, a c-command relation must exist between a copy at the head of the chain and a copy at the foot of the chain. If there is no c-command relation between two copies, they do not constitute a chain, and deletion of one of the copies will not be licensed (Nunes and Uriagereka 2000). (83) shows that a chain can be



determined between *Susan*<sup>2</sup> and *Susan*<sup>1</sup> since the former c-commands the latter. This allows *Susan*<sup>1</sup> to be deleted in PF. However, a chain is not determined between *Susan*<sup>3</sup> and *Susan*<sup>1</sup>, since a c-command relation does not hold between the two or between *Susan*<sup>3</sup> and *Susan*<sup>2</sup>. Therefore, copy deletion cannot apply for *Susan*<sup>3</sup>.

## Chapter 3: Bare Argument Ellipsis and Information Structure

### 3.1. Introduction

This chapter investigates the particular relation between the elliptical constructions studied in the previous chapter – i.e. stripping, negative-contrast and yes/no ellipsis – and information packaging.

As mentioned in the introduction, *Information Structure* (or Information Packaging) refers to the linguistic encoding of topic and focus. The sentences in (1) below express the same propositional content but they are not interpretively equivalent; for example, sentence (1A2) is not a felicitous answer to the question, because the constituent *the car* is focus-marked, although its reference has already been established in the previous discourse.

(1) Q: Who bought a car?

A1: MARY bought a car.

A2: #Mary bought A CAR.

Since the early days of ellipsis research it has been known that there exists a kind of parallelism between the elliptical clause and its antecedent. This parallelism was thought to be syntactic – the remnants of ellipsis usually have the same function as a constituent in the previous clause – and semantic (Fiengo and May 1994, Hankamer and Sag 1976). More recently, the emphasis has been put on certain elliptical constructions which seem to demand a sort of parallelism regarding the information structure of the remnant (Rooth 1992a). For example sentence (3) fails because the remnant *Peter* does not constitute an alternative to the focused object *the books*. Clearly this parallelism requirement depends on the properties of focus and not only syntax or semantics.

(2) JOHN bought the books but not Peter.

(3) #John bought the BOOKS but not Peter.

Winkler (2005) takes this investigation further and suggests that elliptical constructions can be divided into different types according to the role of the information structure and that each type needs a different analysis.

However, in most of the studies where information structure and ellipsis is investigated (Depiante 2000, Winkler 2005), no distinction is made between stripping and negative-contrast, i.e. between (4) and (5) respectively. In both constructions the remnant and its correlate must be contrastively focused.

(4) John bought the books but not Peter.

(5) John bought the books, not Peter.

The only mention is in Drübig (1994)<sup>1</sup> who refers to sentences such as (4), with the presence of the conjunction *but*, as stripping whereas he dubs the construction exemplified in (5) replacive negation, a specific type that belongs to negative-contrastive constructions. Busquets (2005, 2006) based on Drübig's suggestion has recently tried to show how these two constructions differ regarding the specific properties of focus.

Following this line of research, I would like to present some additional evidence that point in this direction. More specifically, I would like to show that both constructions are constrained by information packaging and especially by focus but it will be shown that stripping involves narrow focus whereas negative-contrast involves contrastive focus. Section 2 presents the basic data. In section 3, after presenting an overview of the basic literature on focus, I show that stripping involves not contrastive focus but narrow informational focus. In section 4, I present some background literature on topic and I argue that in the third construction under investigation, yes/no ellipsis, the remnant must be considered a contrastive topic. The fact that the remnant is topicalised and not focused also provides a straightforward explanation for the fact that the negation follows the remnant; since the remnant is topicalised it must be outside the scope of the negation. Finally section 5 presents a summary of the chapter.

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<sup>1</sup> Cited in Busquets (2005).

### 3.2. Description of the data

The first piece of evidence that there must be a difference between stripping and negative-contrast is the fact that one can find discourse contexts where the two constructions are not interchangeable.

(6) Q: Was John born in Newcastle?

A1: He was born in London, not in Newcastle.

A2: #He was born in London, but not in Newcastle.

Of course the oddity of A2 may be associated with the specific pragmatic properties of the verb to *be born*. John can necessarily be born only in one location and apparently stripping is inconsistent with this unique presupposition (Carlson 2002). However, similar examples can be constructed with other types of verbs which do not pose such restrictions. An example in Greek is given in (7).

Glosses start with lower case

(7) Q: O Yorgos ekane oles autes tis zimies;  
the Yorgos-NOM did-3SG all those the damages  
'Did Yorgos do all this damage?'

A1: Ta piata ta espase o Petros, ohi o Yorgos.  
the plates-ACC NEUT-PLUR.ACC broke-3SG the Petros-NOM, not the Yorgos-NOM  
'The plates, Petros broke them, not Yorgos.'

A2: #Ta piata ta espase o Petros, ala ohi o Yorgos  
the plates-ACC NEUT-PLUR.ACC broke-3SG the Petros-NOM, but not the Yorgos-NOM

Furthermore, it seems that negative-contrast can co-occur with overt negation in the first conjunct whereas this is impossible for stripping (Veloudis 1982). The contrast is shown in (8).

(8) A: I thought it was Peter who didn't pass the exams.

B1: No, MARY didn't pass the exams, not Peter. [negative-contrast]

B2: \*MARY didn't pass the exams, but not Peter. [stripping]

In Finnish, which also exhibits both constructions, the difference is also manifested morphologically<sup>2</sup>; negative-contrast, shown in (10) includes a suffix enclitic to the negative particle. Most importantly, stripping in (9) allows the subject to be dropped but negative-contrast in (10) does not.

(9) Pariisissa (minä) kävin, mutt-en Roomassa. [stripping]  
Paris-in I visited but not Rome-in  
'I visited Paris, but not Rome.'

(10) Pariisissa \*(minä) kävin, en-kä Roomassa. [negative-contrast]  
Paris-in I visited not-PRT Rome-in  
'I visited Paris, and not Rome.'

### 3.3. *Information Structure and Stripping/Negative-Contrast*

Before proceeding to a detailed investigation of the information structure of the two elliptical constructions, a general idea of focus must be given.

#### 3.3.1. **The notion of Focus**

Focus has always been associated with the discourse notion of 'new information', the information that is assumed not to be common knowledge between the speaker and the hearer. A common partition of the sentence is that of focus-presupposition, where focus represents the part of the sentence that is asserted whereas the rest of the sentence is presupposed (Chomsky 1976, Jackendoff 1972).

(11) Q: Who saw Al Pacino's new movie?

A: MARY saw it.

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<sup>2</sup> I would like to thank Anders Holmberg for the observations and the data on Finnish.

In (11) *Mary* is the constituent that corresponds to the *wh*-phrase providing the new information. This constituent, which prosodically, contains the intonational nucleus of the sentence (Rochemont and Culicover 1990) is the focus of the sentence. The rest of the sentence is considered background information shared by the hearer and the speaker. The pitch accent that focus is associated with in English is known as *A accent* (Jackendoff 1972).

Within the syntactic approach, many researchers have shown the importance of distinguishing two types of foci, informational focus and contrastive focus (Drübig 2003, Kiss 1998, López 2000, Vallduví and Vilkuna 1998, Vilkuna 1995). Although both types of foci represent the part of the sentence that is asserted, in the contrastive case, the speaker assumes that the hearer has a limited number of alternatives to which the focused expression is contrasted; in other words, focus is related with exhaustiveness. For the semantic approaches to focus, focus is always contrastive because it conveys a contrast between the actual element in focus and the potential alternatives (Rooth 1992a).

However, focus studies in many languages have shown that the distinction between ordinary focus and contrastive focus is mandatory, since the latter involves syntactic reordering whereas the former does not. The most well studied example is the case of Hungarian, where it has been shown that focused constituents must occur in a designated syntactic position within the clause, i.e. in the immediate preverbal position (1998, Kiss 2002).

- (12) Mari EGY KALAPOT nézett ki magának.  
Mary a hat-ACC picked out herself-ACC  
'It was a hat that Mary picked for herself.'

(Kiss 1998: (8a))

Kiss dubs this focus identificational and defines it in the following way:

An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds (Kiss 1998: 245).

According to this definition, in (12) *the hat* constitutes the only alternative of the set made available in the discourse with the sense that Mary chose only the *hat* and the rest of the things that she could have chosen are excluded. On the other hand, if focus does not include

this exhaustiveness and simply presents new information, the focused constituent does not need to appear in the preverbal position, as shown in (13).

- (13) Mari ki nézett magának egy kalapot.  
 Mary out picked herself-ACC a hat-ACC  
 'Mary picked for herself a hat.'

(Kiss 1998: (8b))

The syntactic reordering of contrastive focus is not restricted to Hungarian. In many other languages, contrastive focus is associated with a particular syntactic position. In Finnish, contrastive focus has to occur in the leftmost position of the clause whereas information focus must be inside the IP (Molnár 2001, Vallduví and Vilkuna 1998, Vilkuna 1995)<sup>3</sup>.

In Romance languages, contrastive focus can be associated with the left periphery but it need not; contrastively focused constituents in Italian can be found in the leftmost or the rightmost position of the clause (Rizzi 1997). However, when the focused constituent occurs in the left periphery, it is obligatory associated with a contrastive interpretation.

- (14) Gianni ha parlato di questo libro, non Pietro.  
 Gianni has-3SG talked about this book, not Pietro  
 'It is Gianni that has talked about this book, not Pietro.'

- (15) Ha parlato di questo libro Gianni, non Pietro.  
 Has-3SG talked about this book Gianni, not Pietro  
 'It is Gianni that has talked about this book, not Pietro.'

The same applies to Spanish (Escobar 1997).

Regarding Modern Greek, Tsimpli (1995) does not distinguish between contrastive and ordinary focus; she argues that focused constituents can appear either in the left periphery or *in situ* but in both cases syntactic movement is involved.

- (16)a. O Dimitris agapai TIS MIXANES.  
 the Dimitris-NOM loves-3SG the motorcycles-ACC  
 'Dimitris loves motorcycles.'

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<sup>3</sup> More specifically, Vallduví and Vilkuna (1998) and Molnár (2001) argue that in Finnish, contrast is associated with a separate functional projection in the left periphery whose specifier can accept both foci and topics.

- b. TIS MIXANES                    agapai        o Dimitris.  
 the motorcycles-ACC loves-3SG the Dimitris-NOM  
 'It is motorcycles that Dimitris loves.'

Contra Tsimpli (1995), Kiss (1998) shows that preverbal focus in Greek cannot be information focus. The first evidence comes from the English translations that Tsimpli herself uses for the Greek sentences; (16b) is translated with a cleft construction which is assumed to express exhaustive identification. This suggests that the two sentences do not involve the same type of focus.

Furthermore (16b) implies that there is something else that *Dimitris* doesn't like. This intuition is further supported by the fact that (16a) can be used as an answer to a wh-question<sup>4</sup> but (16b) cannot be felicitously uttered as conveying non-contrastive new information. This is shown in (17).

- (17) Q: Ti agapai o Dimitris ?  
 what loves-3SG the Dimitris-NOM  
 'What does Dimitris love?'

A1: O Dimitris agapai TIS MIXANES .  
 the Dimitris- NOM loves-3SG the motorcycles- ACC  
 'Dimitris loves motorcycles.'

A2: # TIS MIXANES                    agapai        o Dimitris.  
 the motorcycles-ACC loves-3SG the Dimitris- NOM  
 'It is motorcycles that Dimitris loves.'

The same idea is supported in Alexopoulou (1996) who argues that when preverbal, focus is always contrastive.

### 3.3.1.1. A further distinction: Identificational versus contrastive focus

Although most syntactic approaches accept the idea of contrastive focus, there is a great confusion in the literature regarding contrastive focus. The problem is that contrastive focus has been used as a cover term for various subtypes of foci whose exact semantic

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<sup>4</sup> However, the reader must bear in mind that the most natural reply in (17) would be an elliptical one, as in (i).

(i) Tis mixanes.  
 The motorcycles-ACC



import varies from author to author (exhaustive, contrastive, identificational). As seen earlier, Kiss argues that the requirement of contrastive focus is exhaustiveness. Others use the term contrastive to refer to any focused constituent that is overtly or covertly associated with a focus operator, such as *only* and *even* and can be either preposed or left in situ<sup>5</sup>.

(18) The exercises were really easy. Even MARY managed to solve them.

(19) Q: Did Susan win the first prize?

A: No, MARY won the first prize (not Susan).

Furthermore, the contrastive focus of Finnish, Italian and Greek entails the idea of correction; in (19) contrastive focus on *Mary* entails that the proposition is false with respect to the rest of the alternatives, thus inducing the supposition that the speaker corrects a previous assumption which is explicitly or implicitly made by the hearer. In (19) the hearer's assumption is that 'Susan won the first prize'. However, this assumption cannot only be due to the exhaustiveness condition imposed on contrastive focus. Kiss (1998) admits that identificational focus in Hungarian differs in interpretation from that of languages which have preposing of focused constituents in the left periphery, such as Italian and Finnish. Only in the latter, does focus have a mandatory additional corrective interpretation<sup>6</sup>. However, she does not clarify exactly how exhaustivity differs from the notion of contrast and the notion of correction.

Some researchers have tried to address the aforementioned problem by proposing that contrastive focus must be further subdivided depending on what type of exclusion we have in each case. For Vallduví and Vilkuna (1998), there is information focus and focus that evokes a set of alternatives; the latter includes contrastive focus as a subtype. The distinction is best captured in Molnár (2001) who shows that the notion of contrast involves a three way distinction. According to her analysis, contrastive focus always operates on a set of alternatives (Rooth 1992a, 1996); the difference is that this set can either be open, in

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<sup>5</sup>For Kiss (1998) this type of English focus, left in situ or preposed via topicalization, can only be considered as presentational (informational) foci and not contrastive (identificational). Furthermore *even* and *also* cannot be considered as contrastive focus operators forcing movement.

<sup>6</sup>Kiss makes the distinction in terms of the features. Hungarian focus is [+exhaustive] and can be [+contrastive] whereas Finnish focus or Romance focus must [+exhaustive], [+contrastive].

which case we have the Hungarian type of focus or it can be closed in which case the alternatives are explicitly mentioned in the previous discourse. This latter case is the contrastive focus of Italian and Greek and it is this that involves the idea of correction. Finally, Molnár suggests that contrast can also be combined with topichood, in which case we have the contrastive topic. This will be dealt in a later section.

Drübig (2003) also suggests that contrastive focus must be related to a closed set of alternatives, explicitly given in the discourse. Furthermore, Drübig, based on the fact that contrastive focus of the Finnish type does not have to be close to the verb, identifies two different positions for focus, one in the sentential periphery and one preverbal<sup>7</sup>; if focus is in INFL, then it has an exhaustive reading whereas if focus is in COMP it has a contrastive reading, which means that an additional requirement on the set of alternatives is imposed.

### 3.3.2. Focus, stripping and negative-contrast

The basic point of the previous section was that contrastive focus may operate on either an open or a closed set of alternatives. The latter is closely connected with the idea of correction. The main point in this section is to show that stripping involves the former type of focus whereas negative-contrast involves the latter.

It has been said that in coordinated structures the coordinated elements must be parallel with respect to syntax, semantics and prosody. Umbach (2004) draws attention to this semantic parallelism and argues that it relies on two conditions; first the two conjuncts have to be semantically independent, neither of them subsuming the other, and secondly there has to be a 'common integrator', i.e. a concept subsuming both conjuncts (Umbach, 2004: 162).

(20) John had a beer and/but Mary had a martini.

(21) #John had a drink, and/but Mary had a martini.

(Umbach 2004: (9a))

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<sup>7</sup>A possible complication is why Greek and Spanish, which according to Drübig, exhibit contrastive focus in the left periphery, seems also to involve obligatory subject-auxiliary inversion (Laka 1990). Alexopoulou (1996) and Tsiplakou (1998) have argued that preverbal focus in Greek is always contrastive but also that it needs to be verb adjacent.

Thus from the two sentences above, only the first one is acceptable. In the second one, the semantic independence is violated because the notion of the *martini* is subsumed under the notion of *drinks*. Therefore, we conclude that coordinated elements have to be alternatives with respect to each other in the sense that focused elements have to as well.

However, according to Umbach, coordination with *but* also involves another type of contrast, that of the exclusion. First of all, Umbach shows that *but* is focus-sensitive, in the sense that depending on the focus of the *but*-conjunct, we expect different contrasts; (22) raises the expectation that the object of the antecedent clause will be focused whereas (23) raises the expectation that the subject will be focused.

(22) ...but Mary has read 'PRIDE AND PREJUDICE'.

(23) ...but MARY has read 'Pride and Prejudice'.

Furthermore, if a *but* sentence is a reply to a question that includes two conjuncts, it is compulsory that one conjunct is a confirmation and the other is a denial. Umbach dubs this the deny-confirm requirement.

(24) Did John and Bill sleep?

- a. #John slept but Bill did.
- b. John slept but Bill didn't.
- c. #John didn't sleep but Bill didn't.
- d. John didn't sleep but Bill did.

What is important for our analysis is the second example. Based on the deny-confirm relation, *but* is characterised as anti-additive: The conjunct introduced by *but* first adds an alternative and secondly this alternative results in a false proposition when combined with the background, therefore requiring negation. The excluded alternative could have been true in addition to the focused one; there could be a situation where both John and Bill slept.

Summarising then, the contrast induced by a *but* sentence is characterized by the exclusion of elements in addition.

The natural question to ask at this point is if this focus on the *but* sentences is contrastive focus of the Italian type. Umbach shows that this is not the case. She distinguishes the contrast use of *but*, shown again in (25), from the corrective use of *but*, shown in (26)<sup>8</sup>.

(25) Bill didn't visit Rome but he visited Milan.

(26) Bill didn't visit Rome but Milan.

Both examples involve a denial which excludes one of the alternatives, i.e. *Rome*. Nevertheless, as Umbach shows, the two sentences make different predictions regarding the expectations they raise. The first induces the expectation that Bill visited Rome and Milan whereas the second induces the expectation that Bill visited Rome. This difference is confirmed by the fact that (26) is not an acceptable answer to the question in (27).

(27) Did Bill visit Rome and also Milan?

Umbach attributes the difference to the type of exclusion; the first involves exclusion of additional elements whereas the latter involves exclusion by substitution. Relating that to the discussion of focus above, only the second one involves contrastive focus of the Italian and Greek type.

Turning now to ellipsis, the notion of contrast has been widely used in the study of elliptical constructions and especially those that involve coordination, such as gapping and stripping. Many researchers (Depiante 2000, Johnson 1996, López and Winkler 2003, Merchant 2001) have shown that the remnant in the second conjunct must be parallel with respect to syntax, semantics and prosody with a constituent in the antecedent clause. Furthermore, it has been proposed that the remnant in the stripped clause must belong to the set of alternatives of the focused expression in the antecedent clause.

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<sup>8</sup>In some languages, the corrective and the contrastive use of *but* are clearly distinguished because they involve different lexical elements. German uses *sondern* for the former and *aber* for the latter and Spanish uses *pero* and *sino*. Greek patterns with English and uses the same particle for both uses.

(28) Q: Does John speak French and also Italian?

A: He speaks [<sub>F</sub> Italian], but not French.

In (28) the focused part of the antecedent clause is the object *Italian* and therefore the remnant must correspond to this constituent. Any other option leads to ungrammaticality, as in (29) where the remnant corresponds to the subject in the antecedent clause.

(29) \*He speaks [<sub>F</sub> Italian], but not Peter.

Adopting Umbach's *but*-analysis in coordinate structures, the remnant in stripping is a focused constituent which imposes a particular contrast with a constituent in the antecedent clause; (29) fails because the remnant and the correlate are not mutual alternatives, since the remnant does not correspond to the focused constituent of the antecedent clause.

Negative-contrast is also restrained by focus, since it involves a type of coordination even if the conjunction is not present. Bosque (1984) uses the cleft construction and focus movement as tests in order to show that the remnant in negative-contrast must be under focus. (30) shows that the remnant must be parallel to the constituent that is clefted; cleft construction is a focus construction in English. In (31), an example of focus movement, the remnant must be parallel to the constituent that is displaced. Otherwise the sentence is not acceptable.

(30) JUAN es el que confía en Luis, no María (\*no en María).  
Juan is-3SG he that trusts in Luis, not Maria (not in Maria)  
'It is Juan who trusts Luis, not Maria.'

(Bosque, 1984: (51))

(31) VERGÜENZA debería darte, y no reparo (\*y no a Juan).

(Bosque, 1984: (52))

Thus both elliptical constructions involve a contrast that induces exclusion of alternatives. The next step is to establish what type of exclusion we have in stripping and negative-contrast. Consider the data in (32).

(32) Q: Did Bill visit Rome and also Milan?

A1: Bill visited Rome but not Milan.

A2: #Bill visited Rome, not Milan.

From the two answers, only (A1) is compatible, the reason being that it is only this reply that includes exclusion of alternatives. This is the anti-additive use of *but* as shown above. The *but* sentence introduces the alternative which results to a false proposition regarding the common background. Theoretically both alternatives could be true or just one. The second example though, raises the expectation that only one alternative could be true and thus includes exclusion by substitution. Therefore, only (A2) involves the type of focus that has the notion of correction, i.e. contrastive focus<sup>9</sup>.

We can now turn to the differences between stripping and negative-contrast and see how they can be accounted for under this analysis. As it was seen in previous section, there are some contexts where stripping is acceptable but negative-contrast is not. The relevant data are shown here.

(33) Mozart was born in Austria, but not in Vienna.

(34) \*Mozart was born in Austria, not in Vienna.

The reason that negative-contrast is impossible in that context is that it violates the semantic independence condition that should exist between the alternatives; in (34) the alternative *Vienna* is subsumed under *Austria*. On the other hand, stripping since it is a coordinate structure should also be restricted by the same. However, (33) is perfectly fine. Although the

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<sup>9</sup>The fact that both (26) and (32A2) include the notion of correction is also noted in the literature; McCawley (1991) argues that negative-contrast is semantically equivalent to the *not...but* construction and that is why sometimes is called reverse negation. The two constructions are shown in (i) and (ii).

(i) I don't like phonology but syntax.

(ii) I like syntax, not phonology.

The difference is that (i) is more compatible with the notion of 'correction' since the second conjunct introduced by *but* is used to correct a previous statement provided in the first conjunct. On the other hand, the idea of correction is more difficult to be implemented in (ii) because the second conjunct here provides the false proposition and not the true one.

reason is not clear, a suggestion is provided in Umbach; *but*-sentences can include scalar alternatives. This means that the expected alternative introduced in the *but*-sentence may be subsumed by its sister alternative, while the reverse subsumption is not allowed (Umbach 2005); in (33) being born in Vienna implies being born in Austria. Observe that if the alternatives were reversed, the result would be ungrammatical, as it is shown in (35).

(35) \*Mozart was born in Vienna, but not in Austria.

The reason that scalar alternatives are not possible in negative-contrast may be due to the fact that since negative-contrast involves exclusion by substitution, the alternatives must be parallel in every respect.

On the other hand, the approach sketched here provides a straightforward explanation for the unacceptability of stripping in cases like the one below, as already pointed by Drübig (1994).

(36) \*Mozart was born in Salzburg, but not in Vienna.

As it was mentioned previously, here the semantics of the verb imposes the expectation that someone can be born in one place. In stripping, however, the excluded alternative is added to the expectation, since stripping involves exclusion of additional elements. Therefore the semantics of the contrast imposed by the *but*-sentence contradicts the semantics of the verb and leads to the attested unacceptability. On the other hand, negative-contrast which includes exclusion by substitution is compatible with the semantics of the verb, since in both cases the expectation raised by the hearer is that only one alternative should be true. This is confirmed by the data in (37).

(37) Mozart was born in Salzburg, but not in Vienna.

Similar unacceptability of stripping is predicted to occur every time the discourse context induces the expectation that only one alternative can be true.

(38) O Yorgos ekane oles autes tis zimies?  
the Yorgos-NOM did-3SG all those the damages  
'Did Yorgos do all this damage?'

A1: Ta piata ta espase o PETROS, ohi o Yorgos.  
 The plates-ACC NEUT-PLUR.ACC broke-3SG the Petros-NOM, not the Yorgos-NOM  
 ‘The plates, Petros broke them, not Yorgos.’

A2: #Ta piata ta espase o PETROS, ala ohi o Yorgos.  
 the plates-ACC NEUT-PLUR.ACC broke-3SG the Petros-NOM, but not the Yorgos-NOM

The discourse context introduced by the question in (38) above offers an explicit candidate that performed the action of ‘doing the damage’. The reply in (38A1) functions as a corrective statement in order to exclude the candidate introduced by the question from one of the actions included within ‘damage’, that of ‘breaking the plates’ and replaces him with *o Petros*. (38A2), the stripping example, is ungrammatical because exclusion is not by substitution but by addition of alternatives, thus raising the false expectation that both alternatives could be true.

Some additional evidence in favour of the different type of focus is found in Greek. With certain word orders in Modern Greek, such as the OVS order only the contrastive focus is possible (Tsiplakou 1998). Therefore we would expect that in a sentence with an OVS structure, only the negative-contrast construction can be formed. Stripping should not be available. Thus prediction is born out in the data in (39) and (40).

(39) To forema agorase i Sophia, ohi ta papoutsia.  
 The dress-ACC bought-3SG the Sophia-NOM, not the shoes-ACC.  
 ‘Sophia bought the dress, not the shoes.’

(40) #To forema agorase i Sophia, ala ohi ta papoutsia.  
 The dress-ACC bought-3SG the Sophia-NOM, but not the shoes-ACC.

### **3.4 Information Structure and yes/no ellipsis**

In this section I argue that yes/no ellipsis is also restrained by information structure. I will propose that the remnant of the second conjunct not only must be in a parallel relation with a constituent in the antecedent clause but also it has the function of contrastive topic.

According to Depiante’s (2000) analysis seen in the previous chapter, the remnant in yes/no ellipsis is a focused constituent displaced in the left periphery of the clause. However, as we have seen, there is substantial evidence in support of the idea that the remnant in yes/no ellipsis cannot carry focal stress.



Busquets's analysis is different than Depiante's in that the remnant in yes/no ellipsis is not restricted by information packaging and therefore any constituent in the antecedent clause can be the focused one.

- (41) En Joan [<sub>F</sub> no llegeix novel·les], però en Pere sí.  
the Joan not reads novels, but the Peter yes.  
'Joan doesn't read novels, but Peter does.'

(Busquets 2005: (33b))

In (41), the focused constituent in the antecedent clause is the entire IP *no llegeix novel·les* but it is possible for the remnant to be *en Pere* which corresponds to the subject *en Joan*. According to this analysis then, the remnant in yes/no ellipsis can but need not be constrained by focus. However, there is a problem with the idea that yes/no ellipsis is not constrained by information packaging. It is generally accepted that deletion of material is possible only if this material constitutes given information (Chomsky, 1993, Merchant, 2001, Tancredi, 1992, Vallduví, 1992). If that is correct, then the sentence in (41) is problematic under a deletion approach to ellipsis. If the focus is on *no llegeix novel·les* in the stripped clause as well, then it would be impossible for this material to be deleted, since only non focal information can be deaccented or deleted. Furthermore, Busquets's analysis cannot capture the incompatibility of the remnant with focusing adverbs, observed by López and Winkler.

In the sections that follow, I will defend the idea that the remnant must be considered a contrastive topic and that the focus falls on the negative polarity marker instead. Before I proceed with the analysis, I will provide a review on the notion of topic and contrastive topic.

### 3.4.1 The notion of Topic

This relation between what is presupposed and what isn't and the consequences that this relation may have on the grammar has been extensively discussed in the linguistic literature (Chomsky 1971, Halliday 1967, Jackendoff 1972, Prince 1997, Reinhart 1982, Rochemont and Culicover 1990, Selkirk 1984)<sup>10</sup>. Based more or less on that distinction

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<sup>10</sup> There has not been a general consensus on what constitutes new information and what presupposed information as the criteria used are not always the same. For a useful comparison of some of the criteria used for the distinction given-new information, see (Prince 1981).

certain authors have partitioned the sentence into theme-rheme (Halliday 1967), topic-comment (Reinhart 1982) or focus-presupposition (Chomsky 1971, Jackendoff 1972, Selkirk 1984). All these approaches have the common ground that the sentence is divided into a part that contributes new information to the discussion and a part that is less informative. In general terms then, topic has been taken to perform the less informative part, i.e. the anchoring role to the previous discourse. According to Gundel (1988:10), cited in Vallduví & Engdhal (1996) 'An entity, E, is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee's knowledge about, request information about, or otherwise get the addressee to act with respect to E'. In (42), the structure of the sentence seems to indicate that the speaker wants to say something about *Mary*; therefore, *Mary* constitutes the topic of the sentence.

(42) *Mary* wants to learn a new language.

The same suggestion has been put forward by Lambrecht (1994) who claims that the referent of a topic must be an entity already existent in the memory of the addressee.

Although topichood is sometimes related with sentence-initial elements (Halliday 1967), this is not necessary. In English, topichood is primarily achieved through intonation and as a result fronting is not necessary in order for a constituent to be marked with the topic status.

However, in certain languages, topics are also marked syntactically. There are various syntactic transformations that seem to be motivated by the need for topic marking, such as Contrastive Left Dislocation in Germanic Languages and Clitic Left Dislocation in Romance languages and Modern Greek (Anagnostopoulou et al. 1997, Cinque 1990, Rizzi 1997, Tsimpli 1995).

#### **3.4.1.1 A further distinction: contrastive topic**

However, more detailed research on topichood suggests that we can distinguish between different types of topics with distinct pragmatic and semantic differences. The type of topic that is explored here is what has been often called 'contrastive topic'. The most detailed analysis of contrastive topics is the one offered by Büring's Contrastive Topic theory (Büring 1999, 2003, 2005). According to his theory, utterances are divided into three primary information units: *Contrastive Topic* (CT), *Background*, and *Focus*. The function of

Contrastive Topics is to mark deviance from the question, in the sense that they answer a sub-question to the question asked. The CT marking in (43B) indicates two things: the deviance from a complete answer and also the fact that the question about what male pop stars were wearing is left open.

(43) A: What did the pop stars wear?

B: The [female]<sub>CT</sub> pop stars wore [caftans]<sub>F</sub>.

(Büring 2005: (23))

Contrastive topics are discussed in details also in Vallduví (1992) and Vallduví and Engdahl (1996). Vallduví makes a distinction between topics and sentence-initial topiclike phrases. He offers a tripartite structure of the sentence into *Link*, *Focus*, *Tail*; focus is the informative part of the sentence, tail is part of the background information and link is the optional sentence-initial phrase. His notion of link closely resembles that of Büring's contrastive topic<sup>11</sup>. The most important point in Vallduví's analysis, however, is that he shows that links are obligatory sentence-initial. Thus in Catalan, links are associated with left and not right detachment, as seen in (44); only tail material can be dislocated to the right.

(44) [written on an aerogram; first line on the extra space overleaf]  
 Amb-aquest-tros-de-paperet<sub>1</sub> ja [F no hi<sub>1</sub> COMPTAVA t<sub>1</sub>]  
 with-this-little-piece-of-paper anymore no *obl* 1s-impf-count-on  
 'This-little-piece-of-paper I wasn't counting on anymore.'

(Vallduví 1992: (136))

Studies of information structure in Italian and Spanish also indicate that contrastive topics are also associated with the left periphery (Arregi 2003, Benincà and Poletto 2004, Frascarelli and Hinterhölzl 2007). In Italian, a clitic-doubled element need not have been mentioned explicitly in the previous discourse, but may have been included in a set introduced in the context (superset in the spirit of (Büring 2003)). Benincà dubs this 'List Interpretation' of topics.

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<sup>11</sup>Although Vallduví's notion of link is more similar to Reinhart's (1982) view of topics linking up with the object of thought than Büring's CT. For more details, see Vallduví (1992) and Büring (1999, 2005).

(45) Context: a farm producing a set of goods that are known to the people involved in the conversation

- a. La frutta la regaliamo,        la verdure    la vendiamo.  
the fruit it give-1PL for free the vegetables it sell-1PL  
'We give fruit for free, while we sell the vegetables.'

(Benincà and Poletto 2004: (47a))

- b. \*La regaliamo        la frutta    e la vendiamo la verdura.  
it give-1PL for free the fruit and it sell-1PL the vegetables

(Benincà and Poletto 2004: (49b))

According to Benincà and Poletto, (45b) is ungrammatical because right dislocation in Italian excludes the 'List Interpretation' of topics<sup>12</sup>. Frascarelli and Hinterhölzl (2007) support this idea; by using experimental data, they show that a topic in Italian can be interpreted contrastively, only if it moves to the left periphery of the clause.<sup>13</sup>

In Greek, contrastive topics are also dislocated to the left (Alexopoulou 1996, Baltazani 2006)<sup>14</sup>.

- (46) Q: Ta vivlia        pjos        ta        agorase?  
the books-ACC who-NOM CL-PL-ACC bought-3SG  
'Who bought the books?'

A1: To vivlio        ton mathimatikon    to        agorase        o Nikos.  
the book-ACC of mathematics NEUT.3SG.ACC bought-3SG the Nikos-NOM  
'The maths book, Nikos bought it.'

A2: #O Nikos        to        agorase        to vivlio        ton mathimatikon.  
the Nikos-NOM NEUT.3SG.ACC bought-3SG the book-ACC of mathematics

A3: #To        agorase        to vivlio        ton mathimatikon o Nikos.  
NEUT.3SG.ACC bought-3SG the book-ACC of mathematics the Nikos-NOM

In (46) the left dislocated NP, *to vivlio ton mathimatikon* forms a subset of the super-set *the books*, introduced in the question. As it can be seen, (46A2) is infelicitous because the object is in the tail without having been explicitly mentioned in the context. The answer in

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<sup>12</sup> A more detailed comparison of the different types of dislocation in Italian, Spanish and Greek will be offered in chapter 5.

<sup>13</sup> For an analysis of contrastive topics in Hungarian, see (Gyuris 2004, Kiss 2002).

<sup>14</sup> Greek has various dislocation strategies, either to the left or the right of the clause. In chapter 5, I will present a more detailed comparison of these strategies, where it will be shown that contrastivity of topics can only be associated with the left periphery.

(46A3) is inappropriate for the same reason. (46A1) is the only appropriate answer: the object *to vivlio ton mathimatikon*, is dislocated in the left periphery and functions as a contrastive topic, thus creating the expectation that the speaker is following ‘a book by book’ strategy of answering the question in (46) and her answer implies there are other relevant books in the discourse.

In English, as seen earlier, sentence-initial position is not obligatory but contrastive topics can include optional leftward dislocation (Comrie 1981) known as Topicalization although its use is more restricted than that of Catalan, Spanish and Greek.

(47) Q: Where can I find the cutlery?

A: The forks are in the cupboard but the knives, I left in the drawer.

(Vallduví and Engdahl 1996: 473)

In (47) *the forks* and *knives* are selected from the presupposed set of the cutlery introduced in the immediately preceding discourse.

The particular character of contrastive topics is not manifested only syntactically but also by intonation. In English, they are primarily marked by intonation, a L+H\* pitch accent (Vallduví and Vilkuna 1998), also known as the ‘B-accent’ (Jackendoff 1972). Baltazani (2006) shows the same for Greek contrastive topics. In Italian, Frascarelli and Hinterhölzl (2007) show that contrastive topics are also characterised by a distinct intonation, the H\* tone.

### 3.4.1.2 Contrastive topic versus contrastive focus

As seen previously, contrast must be thought of as orthogonal to information structures. Sometimes in the literature there is confusion between contrastive focus and contrastive topics. Some researchers (Molnár 2001, Vallduví and Vilkuna 1998) suggest that contrast must be thought as an autonomous phenomenon of information structure that can that can either be combined with focus, in which case we have contrastive focus or with topichood, where we have the case of contrastive topics. The interpretive properties of contrastive focus and topic are quite distinct. Molnár (2001) argues that contrastive focus is about the exclusion of all the alternatives (which she calls ‘exhaustive exclusion’ or ‘strong exclusion’) whereas the contrastive topics exclude some of the relevant alternatives (‘non

exhaustive exclusion’ or ‘weak exclusion’). She provides the following data from Hungarian as evidence for this distinction.

- (48) [PÉTER]<sub>F</sub> jár      Lundban egyetemre.  
Peter    is going Lund-in university-to  
‘It is Peter who is studying in Lund.’

(Molnár 2001: (20B))

- (49) [PÉTER]<sub>CT</sub> [LUNDBAN]<sub>F</sub> jár      egyetemre.  
Peter    Lund-in      is going university-to  
As for Peter, he is studying in Lund.’

(Molnár 2001: (21))

According to Molnár, contrastive focus on the subject *Péter* in (48) excludes all the other individuals of the possible set that could have gone to Lund University. On the other hand, the contrastive topic in (49), realised with the fall-rise intonation indicates that there is at least one member of the set, *Péter*, for which the predication holds.

Another characteristic is that sentences that contain contrastive topics usually induce narrow focus on another constituent. This seems to be supported by the intonational data as well. There is a prominent rise followed by a low boundary tone. The rest of the sentence forms a separate intonational phrase with a peak at a constituent somewhere in the sentence (Frascarelli and Hinterhölzl 2007, Vallduví and Vilkuna 1998).

### 3.4.2 Contrastive topic and yes/no ellipsis

In this section, I would like to show that the remnant in yes/no ellipsis functions as contrastive topic.

As seen in the previous chapter, Depiante’s study of yes/no ellipsis in Spanish takes the remnant in the second conjunct to be a focused constituent that moves to the left periphery, in a designated focus position before deletion of IP takes place. However, I have already presented an objection to the idea of the remnant as a focused constituent, i.e. the remnant in yes/no ellipsis is incompatible with focusing adverbs (López and Winkler 2000).

- (50) \*Todos han venidos y solo María no.  
everybody have-3PL come and only Maria no.  
‘Everybody came and only Maria didn’t.’

The difference between yes/no ellipsis and stripping regarding the location of focus was also noted by Solé and Solé (1977).

(51) Q: Vendrán todos?  
Will come-3PL all  
'Will everybody come?'

A1: Las niñas no.  
The girls not  
'As for the girls, they won't come.'

A2: No las niñas.  
not the girls  
'Everyone will come except the girls.'

From the translation of the examples, it is obvious that in yes/no ellipsis in (51A1), the remnant is taken as a topic and thus translated with the 'as for...' phrase.

Further objections about the focus status of the remnant are presented in López (1999). His arguments also apply for Greek. Left-dislocated objects doubled by a clitic in Spanish and in Greek constitute given information and as such they cannot be contrastively focused; (52a) can have a contrastive focus function, but this is excluded in (52b) because the object is doubled by the clitic and thus marks given information.

(52) Susana trajo las galletas.  
'Susana brought the cookies.'

a. LAS BEBIDAS trajo Susana, no las galletas.  
the drinks brought Susana not the cookies  
'Susana brought the drinks, not the cookies.'

b. \*LAS BEBIDAS las trajo Susana, no las galletas.  
the drinks them brought Susana not the cookies

However, clitic-doubled constituents, as López argues, can have a linking function between sentences in discourse, i.e. to function as Vallduví's links.

(53) A: Susana trajo las galletas.  
'Susana brought the cookies.'

B: No, las galletas no las trajo. Trajo las bebidas.  
 No, the cookies not them she-brought she brought the drinks  
 ‘No, she didn’t bring the cookies. She brought the drinks.’

(López 1999: (62))

López shows that the remnant in yes/no ellipsis behaves more like a doubled-clitic constituent rather than a focused one.

(54) Susana trajo las galletas.  
 ‘Susana brought the cookies.’

a. No, las galletas no. Trajo las bebidas.  
 No, the cookies not she-brought the drinks  
 ‘No, the cookies, she didn’t. She brought the drinks.’

(López 1999: (64))

b. \*LAS BEBIDAS no.  
 the drinks not

(López 1999: (63))

The sentences in (54) confirms that the remnant of yes/no ellipsis can link with an element already mentioned in the discourse; (54a) has exactly the same function as (53). On the other hand, (54b), which has a similar function to (52a), i.e. the remnant is a focused constituent, is ungrammatical. This provides evidence that the remnant cannot be focused. The same examples can be constructed for Greek as well, as it is shown in (55).

(55) Q: Diavases telika ton ‘Amlet’?  
 read-2SG finally the Amlet  
 ‘Did you read Hamlet?’

A1: Ton ‘Amlet’ ohi. Diavasa omos ton ‘Macbeth’.  
 the-ACC Hamlet not read-1SG however the-ACC Macbeth  
 ‘Hamlet, I didn’t read it. I read ‘Macbeth’.’

A2: \* Ton ‘Macbeth’ ohi.  
 the-ACC Macbeth not.

Furthermore, in Greek there are certain word orders which restrict the focus to certain elements in the clause; in the OVS order for example, focus must be carried by the object of the clause (Tsiplakou 1998). In this context, yes/no ellipsis is not permissible.



- (56) \*To FOREMA agorase i Sophia ala ta papoutsia ohi.  
 the dress bought-3SG the Sophia-NOM but the shoes no.

In the aforementioned example if the object is doubled by the clitic, the sentence becomes grammatical. This further suggests that the remnant in yes/no ellipsis must be considered a clitic left dislocated topic.

- (57) To forema to agorase i Sophia ala ta papoutsia ohi.  
 The dress it-CL bought-3SG the Sophia-NOM but the shoes no  
 ‘As for the dress, Sophia has bought it but as for the shoes, she hasn’t.’

Further evidence that the focused element in the yes/no ellipsis construction is not the remnant but the polarity particle comes from the use of the conjunction. Milapides (1990) observes that, although Right Node Raising (RNR) is generally not available in Greek, nevertheless examples of RNR with the conjunction *eno* are far better in comparison to those with the presence of *and* (‘but’). This is shown in (58).

- (58)a. \*O Yorgos sihenete ke o Petros latrevi to alkool.  
 the Yorgos-NOM detests-3SG and the Petros-NOM adores-3SG the alcohol  
 ‘Yorgos detests and Petros loves alcohol.’
- b. O Yorgos sihenete eno o Petros latrevi to alkool.  
 the Yorgos-NOM detests-3SG while the Petros-NOM adores-3SG the alcohol  
 ‘Yorgos detests and Petros loves alcohol.’

The ungrammaticality of (58a) contrasts with its English counterpart which is perfectly acceptable, as it can be seen from the translation of (58a). Milapides’s explanation for the data above is that whereas in English *and* can be freely used in coordination when two verbs are contrasted, in Greek for this type of contrast, the conjunction *eno* has to be used.

This suggestion could also explain some facts about yes/no ellipsis. The idea is that in yes/no ellipsis, because the remnant is a contrastive topic, it forces another element to bear narrow focus. This element is the polarity particle; contrast in yes/no ellipsis is between predicates. On the other hand, in stripping, where the remnant is the focused constituent, the use of *eno* as a conjunction should not be acceptable. This is confirmed by the data in (59); (59a), an instance of yes/no ellipsis is perfectly fine but (59b), an instance of stripping, is unacceptable.

- (59) a. Ego ti doulia mou tha eksakoloutho na tin kano ala esu ohi.  
 I-NOM the job-ACC my-GEN will continue-1SG to CL-FEM-SG do, while you-NOM not.  
 'I will continue to do my job, but you won't.'
- b. \*Sti diadilosi pige i Maria, eno ohi o Yorgos.  
 to the demonstration went-3SG the Maria-NOM, while not the Yorgos-NOM.

The idea of the remnant as a contrastive topic offers an explanation as to why the negation follows rather than precedes the remnant. According to Lambrecht (1994), the truth of a pragmatically presupposed proposition cannot be negated since its content is taken for granted by the interlocutors. Topic is claimed to express pragmatically presupposed information and thus must be outside of the scope of negation.

### 3.5 *Summary*

In this chapter I have tried to show that ellipsis with the presence of a remnant involves three different processes, stripping, negative contrast and yes/ no ellipsis and that these processes should be clearly distinguished. One major criterion on which this distinction should be based is the information structure of the remnant. I have argued that in both stripping and negative-contrast the remnant is constrained by focus. More specifically the former involves narrow focus whereas the latter involves contrastive focus. Semantically, this difference between the two types of foci is associated with the set of alternatives; stripping involves contrast by exclusion of additional alternatives whereas negative-contrast involves contrast that induces exclusion by substitution. In chapter 6, I propose that this difference is also captured in the syntax. Finally I showed that in yes/no ellipsis, the remnant cannot be focused; it must be considered a contrastive topic.

## Chapter 4: Arguments for a PF-deletion approach to yes/no ellipsis, stripping and negative/contrast

### 4.1 Introduction

As shown in chapter 1, a number of approaches to the licensing and identification of elliptical constructions concentrate on whether ellipsis involves deletion of material that it is actually present at some stage of the derivation or if the lexical material of the antecedent clause is copied to a position that is underlyingly empty. One of the first analyses favouring the former idea was Sag's (1976) deletion approach, formed within the early stages of transformational grammar. According to Sag's analysis the relevant material is deleted between S-structure and PF but the deleted material is then recovered at LF<sup>1</sup>. A similar approach is the PF-deletion, advanced by Chomsky & Lasnik (1993) and Merchant (2001) among others, which takes the view that the elided material has a full syntactic structure but its pronunciation is blocked at the PF level.

On the other hand, there is the non-deletion approach which includes two different approaches. The first is the *Syntactic Displacement Theory* which tries to reduce ellipsis to movement or other syntactic processes (Donati 2003, Johnson 1996, Lechner 2004, López and Winkler 2003). The other is the *Pro-Form Theory* that argues that the elliptical part is inserted in the syntax as a pro-form and interpreted at LF through the general mechanisms of interpreting empty pronouns (Lobeck 1995).

A further question closely related to the discussion above concerns whether all elliptical constructions should be explained under the same analysis or not. From the early stages of generative grammar, Hankamer and Sag (1976), in an influential paper, proposed to classify elliptical constructions into two distinct groups, deep and surface anaphors, basing their distinction on criteria such as the ability/inability of elliptical constructions to have a pragmatic antecedent. According to their classification, deep anaphors are underlyingly present in the syntax as empty pronouns, whereas surface anaphors (gapping, VPE, sluicing, stripping) are derived transformationally by a deletion process.

Another similar classification was the Discourse versus Sentence Grammar distinction, proposed by Williams (1977) according to which Sentence Grammar rules 'define

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<sup>1</sup>An alternative approach is the one advocated by Williams (1977), based on Wasow's (1972) theory of empty structures, according to which, elliptical structures start as syntactically fully developed but some of their parts are not lexically realized. They receive their interpretation at LF by copying the lexical material of the antecedent clause into the position of the empty element.

the form and meaning of sentences' (Williams 1977: 102), whereas Discourse Grammar rules 'specify the relationship of a sentence to its linguistic context – that is, its relationship to other sentences in the discourse' (Williams 1977: 103).

Recent implementations of William's classification furthermore suggest that discourse bound ellipsis (VPE, sluicing) is best analyzed under a pro-form account (Chao 1987, Lobeck 1995) whereas sentence bound ellipsis must be analyzed under a PF-deletion approach (Winkler 2005) or as not involving ellipsis at all (Reinhart 1991).

In this chapter I would like to present arguments in favour of the PF-deletion approach. Starting from strong crosslinguistic evidence that suggests that in all three constructions under discussion, yes/no ellipsis, stripping and negative-contrast, there is a full underlying syntactic structure in the second conjunct, I would like to show that this structure is deleted at PF, rather than material being copied at LF, as the pro-form theory suggests.

The outline of the chapter is as follows: in 4.2 I will present evidence that support the idea that in all three constructions under question there must be an underlying full syntactic structure. In 4.3 I will take a closer look at the pro-form theory and I will argue that a PF-deletion approach is better equipped to account for the elliptical constructions under discussion, thus preparing the PF-deletion analysis that is to be proposed in chapters 5 and 6. Finally, I would like to show that the classification of the elliptical constructions into sentence-bound and discourse-bound is not without problems. This has a direct consequence with regard to yes/no ellipsis, which was so far analyzed under a pro-form analysis, based on the fact that it shares certain similarities with English VPE (López 1999, 2000, López and Winkler 2000). If all the elliptical constructions find a satisfactory explanation under the PF-deletion approach, then a pro-form analysis primarily based on the similarities with VPE can no longer be maintained. Finally, section 4.4 provides a summary of the chapter.

## **4.2 *Arguments for internal structure***

The PF-deletion approach I put forward in this thesis assumes an invisible syntactical structure in the ellipsis site. This idea originates in Sag's deletion theory which maintains that, in the elliptical conjunct, there is a full clausal constituent that is deleted in the course of the derivation. The deletion of the relevant material takes place between S-structure and PF under

identity with material in the antecedent clause<sup>2</sup>. Under this analysis then, in sentence (1), at Surface Structure, there is a full IP in the second conjunct, as shown in (1a), which at the derivation to PF is deleted under identity with the antecedent IP, as shown in (1b).

- (1) a. Mary wants to eat something, but I don't know [<sub>CP</sub> what<sub>i</sub> [<sub>IP</sub> Mary wants to eat t<sub>i</sub>]].  
 b. Mary wants to eat something, but I don't know [<sub>CP</sub> what [<sub>IP</sub> ~~Mary wants to eat t<sub>i</sub>~~]].

In the Minimalist Program, this deletion approach can no longer be maintained since the idea of Surface Structure is abandoned and the only existent levels are the two interface levels, PF and LF (Chomsky 1993, 1995). Within this framework then, deletion resurfaces as non pronunciation of the relevant material at the level of PF; more specifically, in (1) the missing IP is a syntactic copy of its antecedent which simply does not undergo PF Spell Out but which is fully interpretable at LF (Chomsky and Lasnik 1993, Lasnik 1999a, b).

#### 4.2.1 Case Parallelism

The strongest argument for positing an invisible syntactic structure in the ellipsis site comes from case connectivity effects, which had been first observed by Hankamer (1979) and are explored in great detail in Merchant (2001) for sluicing. Merchant presents impressive data from a wide range of overtly case inflected languages that exhibit sluicing (e.g. German, Russian, Greek, Finnish, Polish, Turkish, Basque, and Hungarian) showing that the wh-remnant in the elliptical conjunct must have the case that the fronted wh-phrase would have in the non-elliptical form.

- (2) a. I astinomia sinelave enan apo tous upoptous xhes,  
 the police-NOM arrested-3SG one-ACC of the suspects-ACC yesterday,  
 alla den ipan pjion/\*poios  
 but not said-3PL-PAST who-ACC/ who-NOM  
 'The police arrested one of the suspects yesterday but they didn't say who.'

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<sup>2</sup>The identity requirement on ellipsis takes the form of alphabetic variants. The rule is explicitly stated in Sag (1976) as follows:

With the respect to a sentence S, verb phrase deletion can delete any VP in S whose representation at the level of logical form is a  $\lambda$ -expression that is an alphabetic variant of another  $\lambda$ -expression present in the logical form of S or in the logical form of some other sentence S' which precedes S in discourse (Sag 1976: 105, 106)

For a presentation of this approach and criticism, see also Fiengo & May (1994).

- b. I astinomia sinelave enan apo tous upoptous xhes,  
 the police-NOM arrested-3SG one-ACC of the suspects-ACC yesterday,  
 alla den ipan pjon/ \*poios sinelave.  
 but not said-3PL-PAST who-ACC/ \*who-NOM arrested-3SG  
 ‘The police arrested one of the suspects yesterday but they didn’t say they arrested.’

The wh-phrase in (2b) is assigned accusative case as the complement of the verb *sinelavan* ‘arrested’, before it moves to SpecCP. The fact that the wh-remnant in the sluicing construction in (2a) must be in accusative as well, and not in the default nominative, is an indication that it starts from within the clause as the object of the verb.

The same case connectivity effects are present in all three constructions under investigation in this thesis, as shown in (3) and (4) for stripping/negative contrast and yes/no ellipsis respectively.

- (3) Zitisa na do ton Yani, (ala) ohi ton Yorgo/ \*ohi o Yorgos.  
 asked-1SG to see the Yani-ACC, (but) not the Yorgos-ACC/not the-NOM Yorgos.  
 ‘I asked to see John, (but) not George.’
- (4) Ton Yani, zitisa na ton do, ala ton Petro/ \*o Petros ohi.  
 the Yanis-ACC, asked-1SG to CL see, but the Petros-ACC/the Petros-NOM not  
 ‘As for Yani, I asked to see him, but as for Petros, I didn’t.’

These facts are problematic for any semantic approach to ellipsis, as these rely on the assumption that there is no syntactic structure in the elided material; it thus follows that no verb is present to assign Case. Furthermore, the pro-form theory is equally inadequate to provide an explanation, since in this theory, the remnant is base-generated at its surface position, and thus extra machinery is needed in order to guarantee case matching.

#### 4.2.2 Missing Antecedents

Grinder and Postal (1971) show that VPE can exhibit what they call ‘the Missing Antecedent Phenomenon’.

- (5) My uncle doesn’t have a spouse but your aunt does and he is lying on the floor.

In sentence (5), *he* cannot have as its antecedent the complement *a spouse* of the first clause, because this is under the scope of negation. It thus follows that the pronoun must take its

reference from within the elided clause. This is only possible if we assume that the elliptical part involves an entire clause, *have a spouse* and thus the complement of the elided verb can provide a referent for the pronoun.

The same possibility exists for stripping as well (Sag 1976), as shown in (6).

(6) a. Alan took his hat off, but not Betsy; she always refuses to take it off.  
(Sag 1976: (4.2.24))

b. Juan no tiene un auto, pero si Pedro, y está en muy buenas condiciones.  
Juan not have-3SG a car, but yes Pedro and is-3SG in very good conditions  
'Juan does not have a car, but Pedro has and it is in very good condition.'  
(Depiante 2004: (65), cited in Gallego, 2004)

#### 4.2.3 Extraction out of the ellipsis site

Another test for internal structure is extraction. Haik (1987) shows that extraction of a *wh*-phrase from the elliptical conjunct is available in VPE contexts, as shown in (7).

(7) I know which book Max read and which book Oscar didn't [read *t*].

The fact that (7) is well-formed suggests that the *wh*-phrase is able to bind a trace within the elliptical VP. This is only possible if the elliptical VP has internal structure. The data in (7) sharply contrasts with another construction, *Null Complement Anaphora*, shown in (8), where the ungrammaticality of the sentence is a result of the fact that no syntactic structure is involved (Grimshaw 1979, Hankamer and Sag 1976, Napoli 1983, Shopen 1972)<sup>3</sup>.

(8) \*Mary hopes to meet Madonna but I can't tell you who I hope [to meet *t*].

Again, yes/no ellipsis, shown in (9), patterns more with the data in (7) than the data in (8) thus suggesting the existence of internal structure in the elliptical part.

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<sup>3</sup>Napoli's (1983) analysis of Null Complement Anaphora differs from that of Hankamer & Sag's, since she does not even accept an empty base-generated category. She argues instead that those examples of Null Complement Anaphora involve intransitive verbs.

- (9) a. I Ana mou ipe pjon apo tous filous mou simpathise [Greek]  
 the Ana me-GEN told-3SG who-ACC from the friends my- GEN liked-3SG  
 ala de mou ipe pjon ohi.  
 but not me-GEN told-3SG who-ACC not  
 ‘Ana told me who she liked from my friends but she didn’t tell who she didn’t.’
- b. Credo che Sue mi abbia detto quale film avesse visto, [Italian]  
 think-1SG that Sue me had-3SG said which film had-3SG seen,  
 ma non mi ha detto quale no.  
 but not me said-3SG which not  
 ‘I think Sue told me which movie she saw, but she didn’t tell me which one she  
 didn’t.’
- (López 2000: (35))

#### 4.2.4 Indirect evidence for syntactic structure

Indirect evidence for the presence of syntactic structure in the ellipsis site comes from arguments put forward in favour of movement of the remnant. If it can be shown that the remnant in the elliptical conjunct has been moved to that position from an IP internal position, it naturally follows that there must be a syntactic structure in the ellipsis site.

##### 4.2.4.1 Islands

Ellipsis in general seems to be sensitive to island constraints (e.g. Depiante 2000, Haik 1987, Kennedy and Merchant 2000, Kennedy 2003a, Lappin 1996, Merchant 2004). Example (10) shows that VPE is sensitive to the relative clause constraint, whereas (11) shows that gapping is sensitive to Ross’s (1967) Complex NP Constraint.

- (10) [Everyone wants to hire someone who speaks a different Balkan language]  
 \*Abby wants to hire someone who speaks Greek but I don’t remember  
 [<sub>CP</sub> which (language) Ben does [<sub>VP</sub> want to hire someone [who speaks *t*]].  
 (Merchant 2001: (14))
- (11) \*She discussed the question which letters we wrote and he which books.
- (12) \*John read everything which Mary believes the claim that he did.



The ungrammaticality of (10) is explained, if we assume that the *wh*-remnant moves to SpecCP from an IP internal position. The movement will be illicit since the *wh*-phrase has to move across the relative clause, which constitutes an island. Similarly in (11), the gapping construction is ungrammatical, since the *wh*-phrase in the second conjunct is extracted from a complex NP and the same holds for Antecedent Contained Deletion in (12).

The sensitivity of ellipsis to island constraints naturally follows under the PF-deletion approach. If the remnant moves out from a clause-internal position via standard A'-movement, then this movement is expected to obey all the relevant constraints on movement.

However, a problem that arises at this point is that some island violation effects do not seem to persist under ellipsis. This is true for VPE and certainly for sluicing which systematically avoids island violations (Merchant 2001).

(13) Ben baked the cake and something else but I don't know what.

Although the overt part of (13) would be ill-formed because of the fact that a conjunct has been moved out of a coordinate structure, the sluicing example in (13) is perfectly fine. Problematic data like this, where syntactic effects seem to disappear under ellipsis, have been used to argue in favour of semantic approaches to ellipsis (Dalrymple et al. 1991). Since these approaches do not posit any syntactic structure of the elided material, no island sensitivity is expected.

Although these matters are far from resolved in the ellipsis literature, a proposal that has been put forward in order to account for the apparent contrast and which is consistent with the PF-deletion approach is that some islands constitute PF constraints and therefore the deletion of the offending structure at PF is able to repair the otherwise grammatically deviant structure. Within this line of thought, Merchant (2001) argues that the sluicing facts in (13) can be explained if we assume that the Coordinate Constraint is not a constraint on extraction but rather a constraint operative at PF which prohibits null conjuncts.

(14) Ben baked the cake and something else but I don't know what<sub>i</sub> [Ben baked the cake and t<sub>i</sub>]

If, according to Merchant, the overt part of (13) is the one in (14), where the ungrammaticality results from the null conjunct, the non-pronunciation of the offending IP at PF (PF-deletion) removes the deviant structure and thus the island violation is obviated.

Perhaps a similar solution could be provided in the case of other ellipses that seem not to be sensitive to certain islands.

However, there are two problems if we decide to take into account the above proposal. The first discussed by Lasnik (2006) is that the inability of VPE to ‘repair’ the island violation exists even in cases where there is no actual island violation in the nonelliptical sentence.

(15)a. They said they heard about a Balkan language, but I don't know which Balkan language they said they heard about  
(Lasnik 2006: (81))

b. \*They said they heard about a Balkan language, but I don't know which Balkan language they did  
(Lasnik 2006: (83))

The second problem is that if we assume a uniform PF-deletion approach for all elliptical constructions by trying to account for the apparent ameliorations to the notion of PF constraints, then we cannot explain why the particular elliptical constructions under investigation in this thesis, i.e. stripping, negative-contrast and yes/no ellipsis, do not show such amelioration effects. All three constructions are sensitive to island constraints; (Drübig 2003); in (16) we have a violation of the Sentential Subject Constraint whereas in (17) we have a violation of the relative clause constraint.

(16)a. \*That Mary was late again annoyed Peter, (but) not John.  
[Intended reading:] ‘That Mary was late again annoyed Peter, but that John was late again did not annoy Peter.’

b. \*To oti o Pavlos agapai tin klasiki mousiki [Greek]  
the (fact) that the Paul-NOM loves-3SG the classical music-ACC,  
einai gnosto, (ala) ohi tin rock mousiki.  
is-3SG known but not the rock music-ACC  
Intended reading: ‘That Paul loves classical music is known, but that Paul loves rock music it is not known.’

(17) \*Oi anthropi pou agapousan ton Hatzidaki eftasan idi, (ala) ohi  
the people-NOM who loved-3PL the Hatzidaki-ACC arrived-3PL already, but not  
ton Thodoraki.  
the Thodoraki-ACC  
Intended reading: The people who loved Hatzidaki arrived early, but the people that loved Thodoraki haven’t arrived.’

Yes/no ellipsis is also sensitive to islands, as shown in (18).

- (18) \*To oti tin Alikí o daskalos tin timorise ekane entiposi  
the that the Alikí-ACC the teacher-NOM CL-FEM punished-3SG made-3SG surprise  
se oli tin taxi, ala tin Ana ohi.  
to whole the class, but the Ana-ACC ohi.  
Intended reading: 'It surprised the whole class that the teacher punished Alikí but he  
didn't punish Ana.'

The matter of islands and ellipsis is far from resolved in the literature and it is evident that a more detailed investigation of islands is needed before any conclusions can be reached. Therefore, for the purposes of this study, it will be assumed that a PF-deletion approach is necessary for the constructions under investigation but that another approach, such as the LF-copy, cannot be excluded for sluicing and VPE.

#### 4.2.4.2 Preposition stranding requirements

The previous section shows that if elliptical constructions are found to be sensitive to the same constraints as movement in general, then this constitutes evidence for a movement analysis, which of course presupposes internal structure. A second piece of evidence towards this direction comes from preposition stranding requirements (Depiante 2000, Merchant 2004).

As it is well-known, there are languages that allow a preposition to be left behind in certain types of movement whereas other languages strictly forbid preposition stranding; English is an example of the former type whereas Spanish and Greek are examples of the latter. The contrast between English and Greek with respect to preposition stranding is shown in (19) and (20) respectively.

- (19) Who are you talking with?

- (20) \*Pjon milas me?  
who-ACC talks-1SG-PRES with?

Depiante (2000) and Merchant (2003) show that the contrast that is observed in *wh*-movement data above is also observed in stripping<sup>4</sup>.

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<sup>4</sup> Merchant (2001) presents similar observations from sluicing in a variety of languages.

(21) I talked with John, but not (with) Mary.

(22) Milisa me ton Yorgo, ala ohi me ti Maria/\* ala  
(I) talked-1SG with the Yorgo-ACC, but not with the-ACC Maria/ \*but  
not the-ACC Mary.  
'I talked with John, but not Mary'.

Whereas English stripping is fine with or without the preposition<sup>5</sup>, as indicated in (21), its Greek counterpart is ungrammatical without the preposition. Similar data obtain from yes/no ellipsis, as shown in (23).

(23) Me ton Yorgo milisa ala me ti Maria ohi/ \*ti Maria  
with the Yorgo-ACC (I) talked-1SG, but with the Maria-ACC not / \*the Mary-ACC  
ohi.  
not.  
'I talked with John, but not Mary.'

The preposition stranding facts also naturally follow under the PF-deletion approach. If sluicing, stripping/negative-contrast and yes/no ellipsis involve standard A'-movement of the remnant prior the deletion of IP, then we expect that preposition stranding would be allowed exactly in those languages where it is generally allowed.

#### 4.2.4.3 Syntactic identity

For the PF-deletion approach – and any syntactic approach to ellipsis – an essential requirement for deletion is parallelism with the antecedent clause. This dictates that the elliptical part and its antecedent are syntactically and semantically identical. Consequently, the grammaticality of examples with apparent syntactic non-identity, such as (24), posits a potential problem.

- 
- (i) Mary talked with somebody, but I don't remember (with) who.  
(ii) I Maria milise me kapjon, ala de thimame \*(me) pjon  
the Maria-NOM talked-1SG with somebody- ACC, but not remember-1SG (with) who-ACC  
'Maria talked with somebody, but I don't remember with who.'

<sup>5</sup>Although for some speakers the presence of the preposition facilitates the parallelism between the correlate, *John*, and the remnant *Mary*. If the preposition is absent, the remnant can also be parallel to the subject *I*, provided that it is the subject that receives focal intonation.

(24)a. This problem was to have been looked into, but obviously nobody did.  
(Merchant 2007: (21a))

b. The janitor must remove the trash whenever it is apparent that it should be.  
(Merchant 2007: (1a))

(25) Wendy is eager to sail around the world and Bruce is eager to climb Kilimanjaro,  
but neither of them can because money is tight.  
(Webber 1978, cited in Hardt, 1993)

In (24a), the problem is that there is no strict syntactic parallelism between the antecedent VP and the elided one, since the verb of the antecedent clause is in passive, *been looked into*, whereas the verb that seems to be missing in the second conjunct is in active. The opposite occurs in (24b)<sup>6</sup>. On the other hand, (25) is an example where the parallelism seems to be contextually and not linguistically recoverable; what seems to be missing is *to do what he or she wants to do*. These counterexamples can be accounted for by any semantic theory, where syntactic parallelism is not required.

However, a satisfying solution can also be provided within the PF-deletion approach. Merchant (2007, 2008) observes that these voice mismatches, presented in (24), seem to be only possible for VPE<sup>7</sup>; elliptical constructions that presumably involve deletion of a larger part of the clause do not tolerate any voice mismatching. This is shown by the ungrammaticality of sluicing in (26a, b).

(26)a. \*Joe was murdered, but we don't know who [murdered Joe].

b. \*Someone murdered Joe, but we don't know by whom [Joe was murdered].

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<sup>6</sup> Similar mismatches between the antecedent and the reconstructed ellipsis are presented in Lappin (1996) and fully explored in Fiengo & May (1994); (i) shows an example that involves negative polarity items.

(i) Not many people bought anything but Kim did [buy something/\*anything].

For an explanation of these under a PF-deletion approach, see Merchant (2001).

<sup>7</sup> In certain languages, in VPE environments, this mismatch is not possible. Cyrino & Matos (2002) show that in Portuguese the featural specifications of the antecedent V and the elided must be identical, otherwise VPE is illicit.

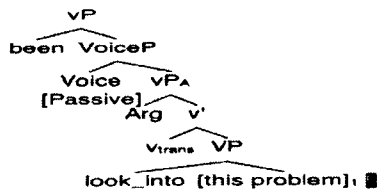
(i) \*Ontem ele não tinha ainda lido esse artigo, mas hoje vai.  
Yesterday he not had yet read the paper, but today goes.  
'Yesterday he had not yet read the paper, but he will today'.

(Cyrino and Matos 2002: (13b))

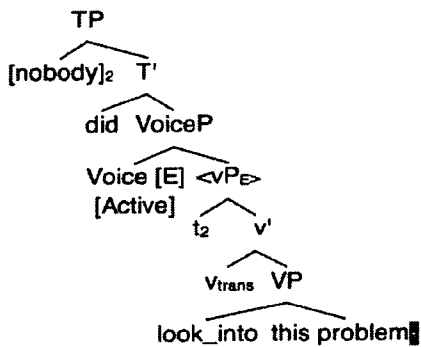
Merchant argues that the contrast observed between (24) and (26) is due to a difference in the size of the structure that is the target for deletion in each construction. The trees in (27a, b) represent the structure of the antecedent and the elided part of (24a) respectively whereas the trees in (28a, b) represent the antecedent and the elided part of (26a).

(27)

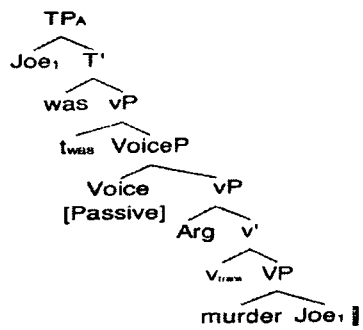
a. [This problem]<sub>1</sub> was to have



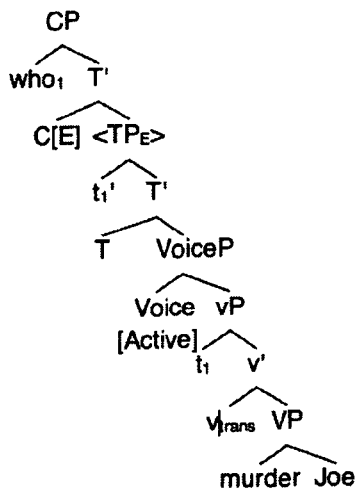
b.



(28) a.



(28) b.



Assuming that Voice is a separate head than the one determining transitivity, Merchant suggests that in (27b), where deletion targets only the VP, Voice will escape the deletion.

Thus, comparing the antecedent (27a) and the elided VP (27b), we can see that there is syntactic identity, assuming that the copy of the passive subject is identical with the object. Therefore despite the apparent voice mismatching, syntactic parallelism obtains and deletion is possible.

On the other hand, in (28b), where deletion targets the TP, the head voice will be included in the deletion site. Consequently, syntactic identity between (28a) and (28b) cannot be obtained since the featural properties of voice of the antecedent in (28a) will be different from those of elliptical part in (28b). The lack of parallelism is the reason that deletion fails.

Merchant's analysis predicts that voice mismatches will not be tolerated in the elliptical constructions where the head that determines the voice morphology is included within the deletion site. This is confirmed by the data in (29) and (30) which show that gapping (Johnson 1996), and pseudogapping do not allow voice mismatches.

(29) \*Roses were brought by some, and others did lilies [bring].

(30) \*Roses were brought by some, and others lilies [bring].

Voice mismatching also fails in all the constructions under discussion, thus suggesting that deletion of the clausal node is involved.

(31)a. \*Peter won the game but not by Paul. [stripping]

a. \*I Eleni pligothike apo ti sumperifora, [Greek stripping]  
 the Eleni-NOM was-3SG-PAST hurt from the behaviour  
 ton gonion tis, ala ohi i sumperifora tis aderfis tis.  
 of the parents her-GEN, but not the behaviour-NOM of-the sister her-GEN

(32) \*Apo ton pathologo exetastike o Petros [Greek yes/no ellipsis]  
 By the pathologist was examined-3SG the Petros-NOM  
 ala o nevrologos ohi [exetase ton Petro].  
 but the neurologist-NOM not [examined Petros]

This contrast between sluicing, stripping and pseudogapping on one hand and VPE on the other is unexpected under the pro-form theory, where the antecedent VP/IP is reconstructed into the ellipsis site. Not only has additional machinery to be provided in order to account for



the voice alternation but also the contrast between the different types of ellipsis remains unaccounted for.

#### 4.2.4.4 Internal argument alternations

In relation to the alternations observed above, Chung et al. (1995) in their discussion of sluicing also observe that argument alternations are not possible under ellipsis. This has to do with verbs that can have different subcategorisation requirements. Chung et al. provide as an example the verb *serve* which can have two different argument structures represented in (33a) and (33b) respectively.

(33)a. She served<sub>1</sub> the guests drinks.

b. She served<sub>2</sub> drinks to the guests.

Chung et al. (1995) show that sluicing fails when the verb of the elided clause has a different argument structure than that of the antecedent. This is shown in (34).

(34) \*She served<sub>1</sub> someone drinks, but I'm not sure to who<sup>8</sup>.

The same ungrammaticality holds in the case of implicit antecedents, as in (35).

(35) They told me that Mary was flirting, but they didn't know \*(with) who.

In the example above, the *wh*-phase is ungrammatical without the preposition because the PP *wh*-remnant *with who* is parallel to the PP of the antecedent clause, if this was present. If the correlate in the antecedent must be a PP, this is compulsory for the *wh*-remnant as well. This constitutes strong evidence that suggests that the displaced constituent must be licensed

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<sup>8</sup> An example with *serve*<sub>2</sub> would in the surface seem grammatical, as seen in (i) due to the fact that English allows preposition stranding in sluicing.

(i) She served<sub>2</sub> drinks to someone, but I'm not sure (to) who(m).

by an extension of the particular argument structure of the antecedent IP and therefore ellipsis must be stated on syntactic representations<sup>9</sup>.

#### 4.2.4.5 Binding effects

Apart from the case identity requirement, presented in 4.2.1, ellipsis in general seems to be restricted by Binding Theory. Merchant (2004), based on original arguments by Morgan (1973), Kennedy and Merchant (2000) and Kennedy (2003b) have shown that, in a large number of elliptical constructions (e.g. sluicing, fragments, Comparative deletion, VPE), the elliptical site presents the same constraints with respect to the Principles of Binding Theory that its overt full counterpart would have as well; (36), (37) and (38) show the behaviour of VPE, fragments and stripping with respect to Principle B of the Binding Theory.

(36) \*Ben takes care of him<sub>i</sub>, because he<sub>i</sub> won't [take care of him].

(37) A: Who did John<sub>i</sub> try to shave?

B: \*Him<sub>i</sub> [John<sub>i</sub> tried to shave him<sub>i</sub>]

(38) A: Ben<sub>i</sub> loves Anna.

B: \*But not him<sub>i</sub> [Ben<sub>i</sub> doesn't love him<sub>i</sub>]

The ungrammaticality of the examples is explained under a Principle B violation, which dictates that a pronoun must be free in its governing category. Similar arguments hold with respect to Principle A and C (Merchant 2004). Based on the assumption that the principles of the Binding Theory apply to syntactic representations, the ungrammaticality of the examples provides direct evidence that the elliptical part contains a full clause—as represented in the brackets.

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<sup>9</sup>See Merchant's analysis, according to which the head that is responsible for these alternations would be included in the deletion site.

However, the aforementioned argument has been challenged by those supporting the semantic approach to ellipsis (Dalrymple et al. 1991, Hardt 1993); they provide counterexamples where Binding Theory effects seem to disappear under ellipsis.

(39) John arrived at Mary's apartment before she did [arrive at Mary's apartment].

In (39), the full part of the clause would lead into a Principle C violation; however, the elliptical sentence is just fine. Similar counterexamples can be constructed with reflexives.

A pronoun in the elliptical part can take its reference either from the remnant ('sloppy reading') or the correlate in the antecedent clause ('strict reading') (Fiengo and May 1994).

(40)a. John respects his friends and Mark does too [respect Mark's friends] [sloppy]

b. John respects his friends and Mark does too (respect John's friends) [strict]

(41) Bill hates himself and Peter does too.

The availability of the two readings is restricted by Binding Theory; in (41), the strict interpretation of the pronoun, where it refers to *Bill*, is disfavoured because that would be a violation of Principle A which forces the reflexive to corefer with a 'local' NP. This syntactic constraint, however, is not always respected (Hardt 1993, Hestvik 1995); in (42) below, the strict interpretation of the pronoun seems to be available, contrary to the predictions.

(42) Sam loves himself but nobody else does.

This counterexample provides evidence that ellipsis does not obey syntactic constraints, since according to the semantic approach no syntactic structure is present in the elliptical part.

However, both (39) and (42) can be explained within the PF-deletion approach. According to this approach the relevant missing parts of (39) and (42) are given in (43) and (44) respectively.

(43) John arrived at Mary's apartment before she did [arrive at her apartment].

(44) Sam loves himself but nobody else does [love him]

In (43) the elided part does not contain a name, which would strictly correspond to the antecedent and in (44) it does not contain the reflexive but the pronoun. The basic intuition is that these discrepancies are only allowed because of the ellipsis. Of course, for early syntactic approach to ellipsis that took deletion as a specific syntactic operation of structure-destruction, these discrepancies would be unacceptable because strict morphosyntactic parallelism between the antecedent and the elided clause was a prerequisite. However, for the pro-form theory that takes syntactic reconstruction to be LF operative (Fiengo and May 1994)<sup>10</sup> and for the PF-deletion approach which confronts deletion as non pronunciation of the relevant structure, controlled by the actual phonology, the parallelism does not need to be syntactic but only semantic. One such analysis, within the PF-deletion approach, is given in Merchant. Merchant introduces the feature [E] which ‘is the locus of all the relevant features that distinguish the elided part from the non-elided one. In sluicing the feature [E], which is on the head C, instructs the post-spell-out component not to parse its complement. The semantic discrepancies shown in (39) and (42) are predicted by the semantic properties of [E] which are based on a focus condition that Merchant dubs ‘e-GIVENness’<sup>11</sup>. This focus condition which is based on semantic and not syntactic identity ensures that the VP in (38) and (42) can be successfully deleted, thus accounting for all those cases that motivated the structural isomorphism condition in earlier deletion theories.

### ***4.3 More arguments against the pro-form theory***

In the previous section I have reviewed the most important evidence in favour of the idea that there is a full syntactic structure at some point of the derivation of elliptical constructions. Thus, it was shown that the PF-deletion approach is not only able to provide an explanation to certain issues that were problematic for previous deletion approaches, i.e. absence of island and binding effects, but also in some cases, such as case connectivity effects, it is the only theory that can provide a satisfying explanation of the data.

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<sup>10</sup> Fiengo and May (1994) name this phenomenon as ‘vehicle change’ and try to provide an explanation within their Dependency Theory. They argued that the ellipsis site contains a R-expression, but does not trigger a binding violation, because it is allowed to have a pronominal feature. This feature mismatch only holds under deletion.

<sup>11</sup>For the exact definition of the notion of e-GIVENness, and the detailed semantics of the feature [E], see Merchant (2001).

In this section, I would like to discuss some further arguments that have been used against the PF-deletion approach and in favor of the pro-form theory and show that they also do not pose a serious problem for the theory.

#### 4.3.1 The pro-form theory

The pro-form theory of ellipsis<sup>12</sup> assumes that the elliptical material is drawn from the lexicon as an empty category, an arbitrary *pro* and interpretation is done in the same way as for other pronominals without having to say something about syntactic reconstruction. The basic intuition that motivates the idea of ellipsis as a pronominal empty category is the fact that ellipsis seems to be licensed in the same environments as other lexical pronouns (Hardt 1993).

Pronouns can have a long distance syntactic antecedent or even a pragmatic one and furthermore they are able to occur either in a subordinate or a coordinate clause. The two properties are exemplified in (45) and (46) respectively.

(45)a. Q: Does Sue<sub>i</sub> eat fish?

A: Yes, but **she**<sub>i</sub> hates it.

b. [John walks into the kitchen and finds milk spilled all over the floor, and two guilty looking kids. John:]

Q: All right, who did it?

A: **He** did it.

B: No, **she** did it.

(Chao, 1987: (41))

(46) Sue eats fish because/and **she**<sub>i</sub> hates it.

Furthermore pronouns are sensitive to the Backwards Anaphora Constraint (henceforth BAC)(Ross 1967, Wasow 1977). Hankamer & Sag (1976) state the constraint as

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<sup>12</sup>The pro-form theory as captured in Hardt (1993) and López (1999, 2000). There are other pro-form theories, such as the one advocated by Chung et al. (1995) which assumes syntactic reconstruction.

follows: 'an anaphor cannot be interpreted as being in anaphoric relation to a segment that it precedes and commands in surface structure' (Hankamer and Sag 1976: 424).

(47) a. Mary<sub>i</sub> accepted the prize, although she<sub>i</sub> didn't want to accept the prize.

b. Although Mary<sub>i</sub> didn't want to accept the prize, she accepted the prize.

c. Although she<sub>i</sub> didn't want to accept the prize, Mary<sub>i</sub> accepted the prize

d. \*She<sub>i</sub> accepted the prize, although Mary<sub>i</sub> didn't want to accept the prize.

According to the constraint, (47d) is ungrammatical due to the fact that the pronoun not only precedes its antecedent but it also c-commands the antecedent.

The aforementioned properties seem to be present in some forms of ellipsis (Chao 1987, Lobeck 1995, Schachter 1977, Wasow 1977); VPE can have an intersentential antecedent (48a) and a pragmatic one (48b), and it can occur either in subordinate (49a, b) or coordinate environments (49c).

(48) a. A: Mary bought a car.

B: Sara did too.

b. [John pours another Martini for Mary. She says:]

I really shouldn't.

(Hankamer 1978: (7b))

(49) a. Sue eats fish because she has to.

b. Sue eats fish but I think that her brother doesn't.

c. Sue eats fish but her brother doesn't.

Furthermore, ellipsis seems to be constrained by the BAC (Lobeck 1995, Wasow 1977); thus the contrast in grammaticality in VPE shown in (50) parallels the one in (47).

(50)a. Mary started guitar lessons, after Susan did.

b. After Susan started guitar lessons, Mary did.

d. After Susan did, Mary started guitar lessons.

d. \*Mary did, after Susan started guitar lessons.

Similar facts hold for sluicing, as shown in (51).

(51) a. Although we don't know who [e], we heard that someone got fired.

b. \*We don't know who [e] but we heard that someone got fired.

On the other hand, the aforementioned properties are not manifested in all elliptical constructions; for example not in stripping, gapping and negative-contrast. These constructions differ from VP ellipsis, since they seem to be impossible with pragmatic antecedents (Hankamer and Sag 1976, Lobeck 1995) and furthermore they are restricted to coordinate structures. This is demonstrated in (52a, b) respectively.

(52) a. [Mary plays Mozart on piano]

John: \*Yes, but not very well.

[stripping]

b. \*Mary will cook dinner tonight, because not Peter.

[negative-contrast]

Furthermore, stripping and gapping do not tolerate the BAC in any circumstances, as shown in (53) and (54) respectively.

(53) a. \*Although not Peter, some of his friends had visited Paris before.

b. \*Although I think that not Peter, some of his friends had visited Paris before.

(54) a. \*Because Mary tomorrow, Susan will visit her friends today.

b. \*Because I think Mary tomorrow, Susan will visit her friends today.

Wasow, using this discrepancy between VPE/slucing and stripping/gapping regarding the aforementioned properties argues that there cannot be a uniform deletion account for all these elliptical constructions, as Hankamer and Sag suggest. The same idea is maintained by other researchers who propose to explain the VPE data under an analysis that takes VPE to be a null category directly drawn from the lexicon (Chung et al. 1995, Lobeck 1995, 1999, López 2000, Winkler 2005). However, for gapping and stripping, a different approach must be sought. Winkler, for example, who revives Williams's distinction of Sentence vs Discourse bound Ellipsis, argues that elliptical constructions that belong to the former type (stripping, gapping, negative-contrast) should be analyzed under a PF-deletion approach whereas elliptical constructions belonging to the latter are better analyzed under the pro-form theory.

With regard this classification of two different approaches to elliptical constructions, yes/no ellipsis is considered to be best analyzed under the pro-form theory, as was seen in chapter 2. Support for this approach comes from the fact that yes/no ellipsis patterns with VP ellipsis and slucing, since it exhibits the relevant properties, i.e. it can occur across sentences, it can be found in embedded environments and it is constrained by the BAC. (Bosque 1984, Bruccart 1999, López 2000). This is shown in (55).

(55) a. A: Juan leyó Guerra y Paz  
Juan read-3SG War and Peace  
'Juan read War and Peace.'

B: Pedro no.  
Pedro no  
'Pedro didn't.'

b. Juan leyó Guerra y Paz pero creo que Pedro no.  
Juan read-3SG War and Peace but believe-1SG that Pedro no  
'Juan has read War and Peace but I think that Pedro has not.'

c. Aunque creo que Pedro no, Sam ha leído Guerra y Paz.  
although think-1SG that Pedro not, Sam has read War and Peace  
'Although I think that Pedro hasn't, Sam has read War and Peace.'



In this section I would like to show that the arguments that this distinction is based on are not strong enough. More specifically I would like to argue against the idea that yes/no ellipsis, due to the similarities that it shares with VPE, must be thought as a discourse-bound ellipsis and thus is better analyzed as an empty pronominal category.

#### 4.3.2 Pragmatic antecedents

In the ellipsis literature, there is substantial disagreement as to whether a deletion approach to ellipsis is possible for all phenomena or not. Many researchers have noted that almost all elliptical phenomena termed as surface anaphora by Hankamer and Sag can actually function without a linguistic antecedent. (Lobeck 1995, Stainton 2003, Culicover and Jackendoff 2005). This is shown in (56) below where all the elliptical constructions seem to operate based on inferences that are drawn from a non-linguistic context.

- (56) a. [The band starts playing and several couples head for the dance floor. Pulling back his chair and half-rising, John says to Mary:]  
 Shall we? [VPE]  
(Hankamer 1978: (7c))
- b. Distraught homeowner staring at ashes of his house: Why? [sluicing]
- c. A coffee. [fragments]

Examples like this which clearly present a problem for a deletion approach to ellipsis, since there is no linguistic material provided in the first place have been noted by Hankamer & Sag (1976). Their defence of ellipsis as surface anaphora was based on the observation that occurrences such as the ones in (56) seem to be characterised by some kind of marked illocutionary force that manages to suspend the requirement for a linguistic antecedent. A more extensive discussion is found in Hankamer (1978); he constructs similar examples where the illocutionary force is removed (e.g. simple declarative sentences) and shows that these examples with no special illocutionary force are severely degraded. Chung et al. (1995) also observe that sluicing examples with pragmatic antecedents are degraded once they acquire a declarative force. The contrast for VPE and sluicing is shown in (57a, b).

(57)a. ?\*I certainly admire the way Sue does.

b. ?Distracted homeowner staring at ashes of his house: I don't understand why.

If in these cases, the context provides the necessary material to legitimise the use of the ellipsis, then it remains a mystery why these examples are more degraded than the ones in (56a, b). Pullum (2001) further observes that most of VPE examples where the VP is pragmatically recoverable seem to be restricted to the form *auxiliary verb + pronoun*; any other VPE that includes a full lexical NP or a lexical verb is ungrammatical. That also seems to suggest that the examples of VPE with a pragmatic antecedent form a restricted set of conventionalized expressions.

Regarding example (56c), it needs to be pointed out that it does not belong to the type of intrasentential ellipsis under investigation in this thesis (i.e. stripping, negative-contrast and yes/no ellipsis) but to a special type of fragmentary utterances used under specific possibilities of interpretation (Progovac et al. 2006)<sup>13</sup>.

Summarising then the discussion on pragmatic antecedents, even if we accept that genuine nonsentential speech acts occur, this fact alone cannot exclude syntactic ellipsis. As it was shown above, there is adequate data to suggest that syntactic constraints are in operation. Therefore, a division of the elliptical constructions based simply on the criterion of pragmatic antecedents does not seem possible.

### 4.3.3 Ellipsis across sentence boundaries

As it was seen in previous sections, an argument in favor of the distinction between sentence bound (stripping, gapping) and discourse bound (VPE, sluicing) ellipsis is the inability of the former to appear across sentence boundaries (Lobeck 1995). However, this argument does not hold, if one takes into account the data in (58a, b).

(58)a. A: George bought a car.

B: And Mary a bicycle.

b. A: Sam knows how to play the piano.

B: Yes, but not very well.

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<sup>13</sup> For more details on such fragmentary answers see Progovac (2006) and the contributions within the volume (Progovac et al. 2006).

Of course, one could object to the data above by claiming that the presence of the conjunction is obligatory and thus we actually have a continuation of the same sentence. However, Chao (1987) provides evidence against this idea. In (59) it is impossible to have a single sentence started by one speaker and finished by other since each of the instances of the indexical pronoun *I* refers to a different individual; therefore, she concludes that it is possible for stripping and negative-contrast to operate across separate sentences in discourse.

(59) A: I'll bring the salad.

B: And I the wine.

(Chao, 1987: (25))

Since both types of ellipsis can apply across utterances, it naturally follows that this criterion cannot be used as diagnostic in order to distinguish between sentence and discourse bound ellipsis.

#### 4.3.4 The Backwards Anaphora Constraint

Another argument used in favor of the analysis of sluicing and VPE as base-generated unstructured categories is that they obey the BAC, as shown in section 4.3.1. The relevant data are repeated below.

(60) \*She<sub>i</sub> accepted the prize, although Mary<sub>i</sub> didn't want to accept the prize.

(61) \*Mary did, because Susan started guitar lessons.

(62) \*We don't know who, but we heard that someone got fired.

However, there have been certain objections regarding the validity of the constraint as means of supporting an analysis which treats ellipsis interpretively (Sag 1976). Sag (1976) points out that Lasnik's (1976) observation that the ungrammaticality of (60) is a matter of coreference and not of antecedence; (60) would still be ungrammatical even if a previous linguistic context provided a proper antecedent for the pronoun. This is shown in (63).

(63) \*Mary<sub>i</sub> is crazy. She<sub>i</sub> accepted the prize, although Mary<sub>i</sub> didn't want to accept the prize.

On the other hand, VPE and sluicing are perfectly well-formed if the preceding context provides the appropriate antecedent of the elliptical VP, as (64) and (65) show.

(64) Q: Why did Mary start guitar lessons?

A: She did, because Susan started guitar lessons.

(65) Q: Do you know who got fired?

A: We don't know who, but we heard that someone got fired.

Sag thus concludes that, if this constraint above is indeed the BAC, then it seems to be a unique property of definite pronouns and not null anaphors as well. For the purposes of the discussion here then, the BAC is not a safe criterion to use for a pro-form analysis.

Similar objections can be raised with respect to yes/no ellipsis as well, which was shown to obey the BAC and thus analyzed under the pro-form theory.

(66) Q: Does Mary speak French?

a. She doesn't, although I think Susan speaks French.

b. Maria no, aunque creo que Susana habla francés.  
Maria no, although think-1SG that Susana speaks french.  
'She doesn't, although I think Susan speaks French.'

Furthermore, yes/no ellipsis seems to be even more restricted because in contrast to English VPE, yes/no ellipsis fails, if is introduced by a subordinator.

(67) \*Aunque Luis no, Pedro habla francés.  
Although Luis no, Pedro speaks French.

The above facts remain unexplained under the assumption that, in both elliptical constructions, ellipsis is analyzed as an empty pronoun.

The ungrammaticality of the above example is closely related to the ability of an elliptical construction to appear in subordinate environments. The standard assumption is that yes/no ellipsis patterns with VPE (López 1995, 1999, 2000, Kazenin 2000) because it is able to appear in either coordinate or subordinate environments. However, if we take a closer look at the data, yes/no ellipsis cannot occur in embedded clauses when these are introduced by subordinate conjunctions.

- (68) \*Juan escribió la carta porque María no  
 Juan wrote-3SG the letter because María not.  
 Intended reading: Juan wrote the letter because Maria didn't.'

It seems to be restricted in certain embedded sentential complements, as in (69).

- (69) María pensaba ayudar pero mencionó que Juan no.  
 María was thinking-3SG of helping but (she) mentioned-3SG that Juan not.  
 'María was thinking of helping but she mentioned that Juan didn't.'

And even those examples seem to be restricted in embedded environments which are introduced by certain types of verbs, such as *believe* or *think*; for example, use of a factive type verb such as 'regret' leads to ungrammaticality, as shown in (70) (Bosque 1984).

- (70) \*Juan leyó Guerra y Paz pero María sintió que Pedro no.  
 Juan read-3SG War and Peace but Maria regretted-3SG that Pedro not.  
 Intended reading: Juan read 'War and Peace but Maria regretted that Pedro didn't.'

Perhaps an explanation for the aforementioned contrasts may be found in the fact that certain embedded contexts, introduced by *believe* or *think* seem to function as root clauses (Hageman 2004). If that is the case, then one can argue that in examples, such as (68), the remnant of yes/no ellipsis and its correlate semantically are not in a subordinate relation; parallelism is still retained and this is why yes/no ellipsis is possible. This proposal gains further support due to the fact that the same possibility exists with the gapping construction (Brucart 1999). If (71) was true subordination, it should be ruled out as ungrammatical, since gapping is strictly restricted in coordinate environments.

- (71) Luis estudió en Indiana y creo que Antonia en Madrid.  
Luis studied-3SG in Indiana and think-1SG that Antonia in Madrid.  
'Luis studied in Indiana and I think that Antonia studied in Madrid.'

(Bruccart 1999: 2814)

#### 4.4 *Summary*

In this chapter, I tried to show that there is enough evidence leading towards the conclusion that ellipsis includes invisible syntactic structure and it is not the case that the meaning is simply recovered via semantic mechanisms. Furthermore I presented arguments that show why a PF-deletion approach is to be preferred over a pro-form analysis especially for the constructions under discussion, i.e. yes/no ellipsis, stripping, negative-contrast. Even the similarities that yes/no ellipsis shares with VPE are not an argument in favour of a pro-form analysis for two main reasons; first it is still debatable whether VPE can be convincingly argued to be a base-generated empty pronominal category and secondly the similarities between the two constructions seem to be superficial. If one considers the full range of data, then yes/no ellipsis seems to pattern more with stripping and negative-contrast, which are best analyzed under a PF-deletion approach.

## Chapter 5: A Minimalist analysis of yes/no ellipsis

### 5.1 Introduction

In previous chapters we saw that one of the most influential analyses put forward for yes/no ellipsis is the one proposed by López (1999, 2000) and López and Winkler (2000). According to this analysis, the remnant is a base-generated topic, adjoined to  $\Sigma$ P, whereas the negative polarity marker is the head of  $\Sigma$ P that licenses the VP ellipsis. The elliptical constituent is analyzed as an empty *pro* (Chung et al. 1995, Lobeck 1995), which is the complement of the head  $\Sigma$ . However, in chapter 4 it was shown that a pro-form theory of ellipsis is inadequate for explaining certain connectivity effects, sensitivity to islands that are present in yes/no ellipsis.

In this chapter, I argue against the analysis of yes/no ellipsis as VPE. I propose that yes/no ellipsis in Greek and Spanish should be analyzed in terms of IP deletion. According to the new analysis, the remnant functions as a contrastive topic and as such it has to move to a functional projection, TopP, in the COMP domain, that hosts contrastive topics. This movement, which is argued to be an instance of Clitic Left Dislocation, is then followed by IP deletion. I also propose that contrastive topicalization forces narrow focus on the negative polarity marker which sits at SpecPolP. The head Pol then licenses IP ellipsis. Therefore, the structure I would like to propose is the one in (1).

- (1) [TopP remnant [PolP ohi [IP e]]]

The outline of the chapter is as follows: in section 5.2, I argue that the remnant in yes/no ellipsis functions as a contrastive topic that has been dislocated in the left periphery through the process known as Clitic Left Dislocation (henceforth CLLD) (Cinque 1990). Following Rizzi's (1997) analysis of CLLD in Italian, I argue that the remnant moves to a higher functional projection encoding contrastive topics that is found above FP. In section 5.3, following Cecchetto's (2000) analysis of CLLD, I argue that the remnant moves to SpecTopP from its original position as complement of the verb. This movement provides a straightforward explanation for the attested case connectivity and island effects (presented in chapter 4). In section 5.4, I argue that the negative polarity marker must be considered a

focusing adverb (Rooth 1996) that is merged at the Spec of a functional projection encoding narrow focus, PolP. Following Merchant (2001) I argue that this focus head licenses IP deletion at PF. Finally section 5.5 provides a summary of the chapter.

## 5.2 *Yes/No Ellipsis involves CLLD*

Depiante (2000), in her analysis of Spanish yes/no ellipsis, proposed that the remnant is a contrastive focus that moves to the SpecFocP<sup>1</sup> before IP deletion takes place (see chapter 3 for details of her analysis). Therefore a yes/no ellipsis sentence, as in (2a), has the structure in (2b).

- (2) a. Ana leyó El Quijote pero María no.  
 Ana read-3SING El Quijote but Maria not.  
 ‘Ana read El Quijote but Mary didn’t.’  
(Depiante 2000: (49a))

- b. Ana leyó El Quijote pero [FP María [ΣP no [IP t<sub>i</sub> leyó El Quijote]]].  
(Depiante 2000: (57a))

However, in chapter 4, I provided several arguments supporting the topic status of the remnant. For example, it was shown that the remnant in yes/no ellipsis cannot be a focused constituent, since it is not to be under the scope of a focus-operator, such as *only* and *even* (Kazenin 2000, López and Winkler 2000).

- (3) \*Todos han venidos y solo María no. [Spanish]  
 Everybody came and only María no.  
 ‘Everybody came and only Maria didn’t.’

Further evidence that the remnant is not a contrastively focused element comes from data similar to (4).

- (4) TO FOREMA agorase i Sophia. [Greek]  
 the dress-ACC bought-3SING-PAST the Sophia-NOM  
 ‘It is the dress that Sophia bought (not the shoes).’

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<sup>1</sup>An FP according to her terminology.



In the Greek example in (4), the occurrence of the direct object *to forema* in the leftmost position, without being clitic-doubled, suggests that it is contrastively focused<sup>2</sup> (Tsiplakou 1998)<sup>3</sup>. However, yes/no ellipsis is ungrammatical with this particular word order.

- (5) \*TO FOREMA agorase i Sophia ala ta papoutsia ohi.  
 the dress-ACC bought-3SING-PAST the Sophia-NOM but the shoes-ACC not.

The sentence becomes grammatical if the object in the antecedent is doubled by a clitic, as shown in (6). As the presence of the clitic is a method of defocusing an element (Holton et al. 1997), this forces the correlate ‘the dress’ to function as a topic. Due to the parallelism Constraint (Chomsky 1995) that dictates that the correlate and the remnant must have a parallel interpretation, it naturally follows that the remnant in yes/no ellipsis must also be considered a topicalised constituent and not a focused one.

- (6) TO forema to agorase i Sophia ala ta papoutsia ohi.  
 the dress-ACC CL bought-3SING-PAST the Sophia-NOM but the shoes-ACC not.  
 ‘As for the dress, Sophia bought it but as for the shoes, she didn’t buy them.’

The next point to be established is the type of left dislocation that is responsible for the ‘topicalization’ of the remnant, since detailed research on the cartography of the left periphery has shown that Greek, Spanish and Italian distinguish between two left dislocation strategies, i.e. Hanging Topic Left Dislocation (henceforth HTLD) and CLLD. The constituents that appear as HTLD-ed and CLLD-ed topics, despite the fact that they share the overall property of topics – i.e. being interpreted as given information –, exhibit clearly distinct syntactic

<sup>2</sup>Contrastive focus is represented with small capitals.

<sup>3</sup>The same word order without the object being clitic-doubled can also be obtained in Greek when the object is topicalized. This type of topicalization is similar to English style Topicalization, and it is common in the newspaper register (Alexopoulou and Kolliakou 2002).

- (i) To Kratiko Theatro ksekinise htes ti himerini saison me tin ‘Erofilí’ tou  
 ‘Yesterday the State Theatre began its winter season with ‘Erofilí’ by  
 Hortatsi.  
 Hortatsis’.  
 Tin parastasi skinothetise o Karolos Koun.  
 the performance-ACC directed-3SG the Karolos Koun-NOM  
 ‘Karolos Koun directed the performance.’

(Alexopoulou and Kolliakou 2002: (1c))

This fact, however, does not present a problem to the argument presented above, that when the object is contrastively focused, the use of yes/no ellipsis is not acceptable.

properties (Anagnostopoulou 1997, Cinque 1990). First, HTLD can accept a clitic doubled tonic pronoun or epithet (Anagnostopoulou 1997, Escobar 1997), as shown by the use of the epithet ‘my dear’ in the Greek example (7a) and by the use of the strong pronoun *él* in the Spanish example (8a). On the other hand, CLLD can only accept a *clitic* (weak pronoun), as shown in (7b) and (8b).

- (7) a. Ton Petro, ton nostalgo **ton gliko** mu poli zontas makria [HTLD]  
 the Petros-ACC ACC-CL miss-1SG the sweet-ACC -my much living far away  
 ‘Peter, I miss my dear a lot living far away.’  
 (Anagnostopoulou 1997: (3a))

- b. Ton Petro ton nostalgo poli. [CLLD]  
 the Petros-ACC ACC-CL miss-1SG much  
 ‘I miss Peter a lot.’  
 (Anagnostopoulou 1997: (3b))

- (8) a. Juan, lo conozco a él. [HTLD]  
 Juan, ACC ACC-CL know-1SG him  
 ‘Juan, I know.’

- b. A Juan, lo conozco. [CLLD]  
 Juan-ACC ACC-CL know-1SG him  
 (Escobar 1997: (2))

Furthermore, CLLD forces obligatory case connectivity (Anagnostopoulou 1997). In Greek, where case is morphologically marked on the noun as a suffix, the CLLD-ed NP must have the same morphological case as the clitic, as shown in (9a). This is not compulsory for the dislocated element in HTLD, which can also be in the nominative, as shown in (9b).

- (9) a. Paradextike oti \*i Maria/tin Maria tin emathe kala  
 Admitted-3SG that \*the Maria-NOM/the Maria-ACC ACC-CL knew-3SG good  
 tosa xronia.  
 so many years  
 ‘He admitted that he had figured out Mary after so many years.’

- b. I Maria, tin ematha kala tosa xronia, ksero pos na  
 the Maria-NOM, ACC-CL knew-1SG good so many years, know-1SG how SU  
 tis miliso  
 DAT-CL talk-1SG  
 ‘Mary, I have figured her out after so many years, I know how to talk to her.’  
 (Anagnostopoulou 1997: (6))

In Spanish, on the other hand, there is no particular morphological suffix for accusative case; however, the requirement is satisfied by the presence of the preposition *a* that functions as a case marker next to the dislocated DP. CLLD-ed topics, as in (10a), maintain the preposition of the internal arguments they correspond to, whereas HTLD topics, as in (10b), must be bare DPs<sup>4</sup> (Escobar 1997).

(10)a. A Juan, lo conozco.  
 Juan-ACC ACC-CL know-1SG  
 ‘I know Juan.’

b. Juan, lo conozco a él.  
 Juan, ACC ACC-CL know-1SG him  
 ‘Juan, I know him.’

The same constraint holds for Italian (Benincà and Poletto 2004), as illustrated in (11).

(11)a. Di Mario, non (ne) parla più nessuno. [CLLD]  
 of Mario not (of-him) talks anymore nobody  
 ‘Of Mario, nobody talks of him anymore.’

(Benincà and Poletto 2004: (33b))

b. Mario, non ne parla più nessuno. [HTLD]  
 Mario not (of-him) talks anymore nobody  
 ‘Mario, nobody talks of him anymore.’

(Benincà and Poletto 2004: (33a))

If we turn to the yes/no ellipsis examples with a direct object as the remnant, we observe that the remnant can only be in the accusative; use of nominative case is not permissible, as can be seen by the ungrammaticality of (12)<sup>5</sup>. The same applies for the Spanish and Italian data in (13) and (14).

(12) \*O Petros, ton nostalgo ton gliko mu/afton poli zontas  
 the Petros-NOM ACC-CL miss-1SG the sweet-ACC -my/him much living far  
 makria ala o Yorgos ohi  
 away but the Yorgos-NOM not

<sup>4</sup> For more differences between the two types of dislocation and for examples in Italian see Benincà and Poletto (2004).

<sup>5</sup> Example (12) improves if the intended reading is ‘but Yorgos does not miss him’. In this case *Yorgos* functions as the subject, contrasting with the null subject of the first clause.

(13)a. \*Questo libro ne abbiamo parlato ma quello no. [HTLD]  
 this book of-it (we) have-1PL-PAST talked but this not.

b. Di questo libro (ne) abbiamo parlato ma di quello no. [CLLD]  
 Of this book (of-it) (we) have spoken-1PL-PAST but of the other not.  
 ‘As for this book we have talked about it , but as for the other one, we haven’t.’

(14)a. \*Pedro le he invitado, pero Antonio no. [HTLD]  
 Pedro CL have invited but Antonio not.

b. A Pedro le ha invitado, pero a Antonio no. [CLLD]  
 Pedro-ACC CL have invited but Antonio-ACC not  
 ‘As for Peter I have invited him, but as for Antonio, I haven’t.’

The evidence above suggests that yes/no ellipsis remnants cannot be HTLD topics.

However, Greek also exhibits another type of left dislocation, where no overt clitic is present (see fn 3) (Alexopoulou and Kolliakou 2002), as is shown in (15).

(15) To Kratiko Theatro ksekinise htes ti himerini saison me tin ‘Erofilii’ tou  
 ‘Yesterday the State Theatre began its winter season with ‘Erofilii’ by  
 Hortatsi.  
 Hortatsis’.  
 Tin parastasi skinothetise o Karolos Koun.  
 the performance-ACC directed-3SG the Karolos Koun-NOM  
 ‘Karolos Koun directed the performance.’

(Alexopoulou and Kolliakou 2002: (1c))

Yes/no ellipsis is not felicitous with this particular type of topicalization, as it can be seen in (16).

(16) \*To Kratiko Theatro ksekinise ti himerini saison me duo exeretikis  
 The state theatre-NOM began-3SG its winter season-ACC with two outstanding  
 parastasis.  
 performances  
 Tin proti parakolouthise polis kosmos, ala ti deuteri ohi.  
 The first-ACC saw-3SG many people-NOM but the second-ACC not.

However, if in the above example a clitic is added, the contrastive reading becomes immediately available, as in (17).

- (17) To Kratiko Theatro ksekinise ti himerini saison me duo exeretikes  
 The State theatre began its winter season with two outstanding  
 parastasis.  
 performances.  
 Tin proti **tin** parakolouthise polis kosmos, ala ti deuteri ohi.  
 the first-ACC CL saw-3SG many people-3SG but the second-3SG not.  
 ‘As for the first one many people saw it, but as for the second one, they didn’t.’

The ungrammaticality of (16) is due to the fact that topicalised elements in Greek topicalization do not exhibit any contrastive reading (Anagnostopoulou 1994, cited in Alexopoulou and Kolliakou, 2002).

- (18) #O kathigitis glosologias edose stus fitites vivliografia ke  
 ‘the professor of linguistics gave-3SG to the students a bibliography-ACC and  
 ton Chomsky vrikan poli diskolo.  
 Chomsky-ACC found-3PL very difficult.

English-type Topicalization fails in (18) because *Chomsky* is a subset of the set introduced in the antecedent clause ‘bibliography’ and thus functions as a contrastive topic. If the clitic is added, however, the sentence becomes acceptable, as shown in (19)<sup>6</sup>.

- (19) O kathigitis glosologias edose stus fitites vivliografia ke  
 the professor of linguistics gave to the students a bibliography and  
 ton Chomsky ton vrikan poli diskolo.  
 Chomsky-ACC MASC.3SG.ACC found-3PL very difficult  
 Chomsky, they found him very difficult.’

From the data presented above, it becomes evident that the remnant in yes/no ellipsis can only be a CLLD-ed topic. This conclusion is reinforced by the fact that CLLD is often

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<sup>6</sup> One could argue that Topicalization cannot be excluded based on data, such as (i).

- (i) To Kratiko Theatro ksekinise ti himerini saison me duo exeretikes  
 The State theatre began its winter season with two outstanding  
 parastasis.  
 performances.  
 Stin proti irthe polis kosmos, ala sti deuteri ohi.  
 to-the first-ACC came-3SG many people-3SG but to-the second-ACC not.  
 ‘Many people came to the first one, but not the second one.’

However, sentences as (i) cannot be used as a way of distinguishing CLLD from English-type topicalization because the dislocated element is a prepositional element and therefore the clitic is excluded anyway.

employed as a strategy to isolate contrastive topics. With respect to Romance languages and CLLD, Lambrecht (1994) remarks that CLLD is used ‘to mark a shift in attention from one to another of two more or more already active topic referents’ and often has ‘a contrastive function’ (Lambrecht 1994: 183). Arregi (2003) also argues that CLLD in Spanish must be regarded as contrastive topicalization, in the sense that CLLD-ed elements must be members of a salient set of entities introduced in the discourse.

(20) Q: ¿Qué le diste a Juan?  
 what him gave-2SING to Juan  
 ‘What did you give to Juan?’

A1: Le di un libro (a Juan) Him I-gave a book (to Juan) ‘I gave him/Juan a book.’	A2: A Juan, le di un libro. to Juan, him I-gave a book ‘Juan, I gave a book.’
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(Arregi 2003: (3))

In (20A2) the CLLD of *Juan* presupposes that there were other people that the speaker gave things to.

For Italian, Rizzi (2004) also admits that the use of a CLLD-ed element is slightly redundant if the particular element is the only topic introduced in the previous discourse (in that case the use of clitic is sufficient).

(21) A: Che cosa è successo all’autobus per Roma?  
 ‘What happened to the bus for Rome?’

B: #L’autobus per Roma, lo ha fermato la polizia stradale.  
 The bus to Rome, ACC-CL stopped-3SG the road police.  
 ‘The road police stopped the bus to Rome.’

The use of the CLLD-ed element becomes natural if the context offers a set of given elements of which the particular CLLD-ed expression is a subpart, as in (22).

(22) A: Che cosa è successo all’autobus per Roma a quello per Milano?  
 What happened to the bus for Rome and to the bus for Milan?

B: Io so solo che, l’autobus per Roma, lo ha fermato la polizia stradale.  
 I know-1SG only that, the bus to Rome, ACC-CL stopped-3SG the road police  
 ‘I only know that the road police stopped the bus to Rome.’

((Rizzi 2004: (ftn. 9ii))

And the same can be seen in Greek.

(23) Q: Ta gluka pou iha pano sto trapezi pjos ta  
 the sweets-ACC that had-1SG-PAST on the table who-NOM CL-PL-ACC  
 efage;  
 ate-3SG-PAST  
 ‘Who ate the sweets that I had on the table?’

A: Ta sokolatakia ta efage o Manolis.  
 The chocolates-ACC CL-3PL-ACC ate-3SG-PAST the Manolis-NOM  
 Ta ipolipa de xero pjos ta efage.  
 the rest-ACC not know-1SG-PRES who-NOM CL-PL-ACC ate-3SG-PAST  
 ‘Manolis ate the chocolates. I don’t know who ate the rest (of the sweets).’

## 5.2.1 Excluding Clitic Right Dislocation and Clitic Doubling

### 5.2.1.1 Clitic Doubling

A possible impediment to the idea put forward in the previous sections, i.e. that the remnant in yes/no ellipsis is a CLLD-ed topic, may result from the fact that in Romance languages and Greek, topics also can be found in the right periphery of the clause. As with left dislocation, two types of right dislocation can also be distinguished, Clitic Right Dislocation (henceforth CLRD) and clitic doubling. The question then that needs to be addressed is why the remnant in yes/no ellipsis has to move to the left periphery in the first place. In this section I would like to present evidence that in order for topics to have a contrastive interpretation, movement to the left periphery is a necessary requirement.

Clitic doubling shares with CLLD the common property that is basically used in order to defocalize a constituent and that it also involves the presence of the clitic when the clitic doubled constituent is an object (Philippaki-Warburton et al. 2002). The main difference between the two constructions is that, in clitic doubling, the doubled lexical NP is found at the right of the clitic. This is shown in (24) and (25) for Greek and Spanish respectively.

(24) Tin ida ti Maria /\*I Maria prin apo ligo ke  
 CL saw-1SG the Maria-ACC / the Maria-NOM a while ago and  
 itan-3SG poli stenohorimeni  
 (she) was very sad  
 ‘I saw Mary a while ago and she was very sad.’

- (25) Lo vimos a Juan.  
 CL saw-1PL a Juan.  
 'We saw Juan.'

From the examples above, it is also shown that the case identity requirement between the doubled DP and the clitic is also a characteristic of clitic doubling; in (24) the direct object *Maria* must be in the accusative whereas in (25) the preposition *a* must precede *Juan*.

Regarding information structure, clitic doubling does not seem to be compatible with a contrastive interpretation of the topicalised element<sup>7</sup>. Valioui (1994) argues that the main communicative function of clitic doubling is to serve as a discourse topic re-establishing mechanism. Consider (26).

- (26) A: Tin pira ti foustá telika.  
 CL took-1SG the skirt-ACC  
 'I've bought the skirt finally.'

- B: Kala ekanes. Yia valti na se do.  
 Good did-2SG. Particle put-CL-ACC to you see-1SG  
 'Good. Why don't you put it on. I'd like to see you (in it).'

(Valioui 1994: (8))

According to Valioui, the use of the clitic doubling construction in (26) suggests that there has been a previous relevant discussion between the speaker and the addressee about the speaker's intention to buy a particular skirt.

Clitic doubling is not felicitous when a topic is selected from a larger set, in other words if a topic has a contrastive interpretation.

- (27) Q: Mipos ides pouthena tous gonis mou;  
 perhaps saw-2SG anywhere the parents-ACC my-GEN  
 'Did you see my parents somewhere?'

- \*A1: Tin ida tin mitera sou prin apo ligo stin kouzina  
 CL-FEM saw-1SG the mother-ACC your-GEN before a while in the kitchen  
 ala den ton exo di ton patera sou katholou.  
 but not CL-MASC have-1SG seen the father-ACC your-GEN at all.



A2: Tin mitera sou tin ida prin apo ligo stin kouzina  
 the mother-ACC your-GEN CL-FEM saw-1SG before a while in the kitchen  
 ala ton patera sou den ton exo di katholou.  
 but the father-ACC your-GEN not CL-MASC have-1SG seen at all.  
 ‘As for your mother, I saw her a in the kitchen a while ago, but as for your father,  
 I haven’t seen him at all.’

In the example above, ‘your mother’ and ‘your father’ are subsets of the set ‘your parents’ introduced in the discourse thus carrying a type of list interpretation. For the intended interpretation, only CLLD, (27A2), is possible; clitic doubling of the two objects, as in (27A1), is not suitable.

According to the proposal put forward in this section, clitic doubling should not be compatible with yes/no ellipsis. This is confirmed by the data in (28).

(28) Kanis lathos. O Yorgos den ehi tin idia gnomi ke gia tis duo aderfes.  
 ‘You are wrong. Yorgos doesn’t have the same opinion for the two sisters.’

a. \*Tin theori ti Maria poli exipni ala tin Alikhi ohi.  
 CL-FEM consider-3SG the Maria-ACC very intelligent but the Alikhi-ACC not.

b. Ti Maria tin theori poli exipni, ala tin Alikhi ohi.  
 the Maria-ACC CL-FEM considers-3SG very intelligent but the Alikhi-ACC not  
 ‘As for Maria, he considers her very intelligent but as for Alikhi, he doesn’t.’

Another argument against the idea of the remnant as a clitic doubled topic is the fact that clitic doubling is not as productive in Spanish and Italian as it is in Greek (Iatridou 1990). For example, clitic doubling of an inanimate object, as in (29a), is ungrammatical in Spanish whereas CLLD of an inanimate object is perfectly acceptable, as in (29b).

(29)a. \*Lo compramos el libro ayer.  
 CL bought-1PL the book yesterday

b. El libro lo compramos ayer.  
 the book CL bought-1PL yesterday.  
 ‘We bought the book yesterday.’

---

<sup>7</sup>Iatridou (1990) shows that the two constructions also differ in syntactic terms since in clitic doubling

Therefore a yes/no elliptical sentence in Spanish with a clitic doubled element would be ungrammatical for reasons that have nothing to do with information structure.

- (30) \* Lo compramos el libro ayer pero el journal no.  
 CL bought-1PL the book yesterday but the journal no.

The same problem would be observed in the Italian examples, since in Italian clitic doubling is completely disallowed.

- (31) \*Non lo invitaró Mario ma Antonio sicuramente si.  
 Not CL will invite-1SG Mario but Antonio surely yes.  
 'I won't invite Mario but I surely will invite Antonio.'

The facts above show that clitic-doubled topics must be excluded as possible remnants in a yes/no elliptical construction.

### 5.2.1.2 Clitic Right Dislocation

As was previously mentioned, clitic doubling is very similar to another right dislocation strategy, CLRD. In Greek, where both constructions are fully productive, one way of distinguishing the one from the other is the fact that in CLRD, the doubled NP must occupy the rightmost position in the clause. For example, when an adverb is present, the doubled DP follows the adverb whereas in clitic doubling, it must precede the adverb (Anagnostopoulou 1999)<sup>8</sup>. The contrast is shown in (32).

- (32)a. Tou milisa enos paidiou anixta. [CLRD]  
 CL-GEN talked-1SG a child-GEN openly  
 'I talked to a child openly.'
- b. Tou milisa anixta enos paidiou. [Clitic Doubling]  
 CL-GEN talked-1SG openly a child-GEN  
 'I talked to a child openly.'

---

extraction from a clitic doubled position is not allowed but it is allowed in CLLD.

<sup>8</sup>Anagnostopoulou (1999) argues that the contrast in (32) is due to the fact that in clitic doubling the doubled DP is generated as an argument of the verb whereas in CLRD, it is an adjunct. Androulakis (2001), on the other hand, maintains the idea that the doubled DP is an adjunct in both cases and that the difference between the two constructions can be reduced to a difference in the adjunction site; in clitic doubling the doubled DP is adjoined to VP whereas in CLRD it is adjoined to IP.

CLRD is fully productive in Spanish and Italian as well; (33) is an example from Italian.

- (33) L' ha comprato María, il libro.  
CL has-3SG bought María, the book  
'Maria has bought the book.'

However, as noted by Benincà and Poletto (2004) and Frascarelli and Hinterhölzl (2007), CLRD does not mark contrastive topics.

- (34) \*Lo porto io il vino, la porti tu la torta.  
CL take-1SG I the wine, CL take-2SG you the cake

(Benincà and Poletto 2004: (53B))

For this type of interpretation, only CLLD is possible, as in (35).

- (35) Il vino lo porto io, la torta la porti tu.  
the wine CL take-1SG I, the cake CL take-2SG you  
'I bring the wine, you bring the cake.'

(Benincà and Poletto 2004: (53))

The unavailability of the list interpretation for right dislocated elements is due to the fact that right dislocated elements can only be interpreted as themes, not topics (Frascarelli and Hinterhölzl 2007). The difference between the two is argued to be the following:

We call Theme an LD element that can be recovered from the immediate context. We call Topic an element that is present in the shared knowledge of the speaker and the hearer but is not accessible in the immediate context so that it cannot be recovered' (Benincà and Poletto 2004: 68)

It then follows that yes/no ellipsis should be incompatible with right dislocation, a suggestion that seems to be confirmed by the data in (36).

- (36) \*L' ho visto Gianni ma Mario no.  
CL have- 1SG seen Gianni ma Mario no.

In Greek, where both clitic doubling and CLRD are productive, yes/no ellipsis examples with CLRD are not as deviant as their counterparts with clitic-doubling. (37a) is definitely less marginal than (28a), repeated here as (37b).

(37) a. Tin theori poli exipni tin Maria ala tin Aliko ohi.  
 CL-FEM consider-3SG very intelligent the Maria-ACC but the Aliko-ACC not.

b. #Tin theori tin Maria poli exipni ala tin Aliko ohi.  
 CL-FEM consider-3SG the Maria-ACC very intelligent but the Aliko-ACC not.

Although I can offer no explanation for the apparent contrast, it has to be pointed out that even CLRD is considered unacceptable if compared to CLLD. (38a) is fully grammatical in comparison to the marginal (38b).

(38) a. Tis Anas tis dinis xartziliki ala tis Elenis ohi.  
 the Anas-GEN CL- GEN give-2SG pocket money but tis Elenis-GEN not.

b. \*Tis dinis xartziliki tis Anas ala tis Elenis ohi.  
 CL- GEN give-2SG pocket money the Anas-GEN but tis Elenis-GEN not

### 5.2.2 CLLD as movement to TopP

After having established that yes/no ellipsis involves CLLD of the remnant, I would like to argue that, following Rizzi (1997), the remnant occupies the Specifier position of TopP, a functional projection in the COMP zone that hosts topicalised elements.

Rizzi (1997) put forward the idea of an articulated complementiser system, in the spirit of Pollock (1989) for IP, which comprises several functional heads and their projections, as seen in (39).

(39) ...Force ...(Topic)...(Focus)...Fin...INFL

The head Force specifies the clausal typing (e.g. declaratives, interrogatives), whereas Finiteness differentiates between finite and non-finite constructions. ‘Sandwiched’ between the aforementioned projections are the Topic and Focus positions which Rizzi assumes that are formed by the same structure-building mechanism: there are the functional heads Focus and Topic which give rise to their own projections. Any preposed constituent that ends up at their Specs receives a topic or focal interpretation.

Regarding the topic position, Rizzi focuses his analysis on Italian CLLD, taken to express the topic-comment articulation. According to his analysis of CLLD, the Italian sentence in (40) with a clitic left dislocated object, has the structure in (41).

(40) Il tuo libro, lo ho letto.  
 Your book, CL have-1SG read  
 ‘I have read your book’.

(41) [<sub>TopP</sub> Il tuo libro [lo ho letto]]

In (41) above, the head Top carries a [Top] feature requiring it to be extended to a TopP containing a topic phrase as its specifier. Movement of the DP *il tuo libro* satisfies the featural requirement of the head by virtue of spec-head agreement.

Rizzi’s idea of a separate topic projection stands against earlier proposals that topicalised constituents can be simply adjoined to IP (Lasnik and Saito 1992). Evidence for the existence of a whole X-bar projection for topics comes from the fact that in certain languages, the Topic head can be morphologically manifested (Rizzi 2004) and that CLLD constructions exhibit subject-object asymmetries reminiscent of subject-object asymmetries in A’chains (Rizzi 1997).

(42)a. A qui crois-tu que je pourrais donner ma voiture t?  
 to who believe-2SG-you that I could-1SG give-INF my car  
 ‘To whom do you believe that I should give my car?’

b. \*Qui crois-tu que t pourrait acheter ma voiture ?  
 who believe-2SG-you that could-3SG buy-INF my car  
 ‘Who do you believe that could buy my car?’

Movement out of the subordinate clause is fine for the *wh*-phrase in (42a), but problematic for the *wh*-phrase in (42b). Rizzi explains the above contrast in terms of the ECP which requires that traces must be properly head-governed by a head in their immediate projection. The trace of the complement in (42a) is properly governed by the verb but the subject, in (42b), cannot be governed because the head C does not normally act as a governor and thus (42b) is excluded as an ECP violation. However, according to Rizzi, the same ungrammaticality does not arise in embedded questions as in (43), because the *wh*-phrase can trigger abstract agreement on the head C, which is thus activated as a head-governor for the subject trace.

- (43) Je ne sais pas qui t pourrait l'acheter.  
 I not know-1SG who could-3SG CL buy  
 'I don't know who could buy it.'

Turning now to embedded questions which include a CLLD-ed element, we observe that sentences parallel to (43) are ungrammatical, as shown in (44b).

- (44)a. Je ne sais pas à qui, ma voiture, je pourrais la donner t.  
 I not know-1SG to whom, my car, I could-1SG CL give  
 'I don't know to whom I could give my car.'

- b. \*Je ne sais pas qui, ma voiture, t pourrait l'acheter.  
 I not know-1SG who, my car, (he) could-3SG CL buy

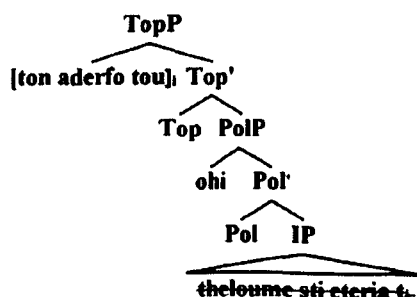
Rizzi explains the above contrast in terms of the subject-object asymmetry observed in the wh-movement in (42); (44a) is grammatical because the trace is properly governed by the verb but (44b) is ungrammatical, because, the head C cannot govern the subject trace due to the intervention of the head Top. Under the analysis that in (44a, b) the CLLD-ed element is simply adjoined to IP, we are left with no straightforward explanation for the observed contrast between the sentences.

Furthermore, Rizzi's proposal of a separate projection for topics has the desirable consequence that it is consistent with stricter versions of the X' theory according to which there is no free adjunction (Kayne 1994)<sup>9</sup>.

Adopting then Rizzi's cartographic approach, I propose that the structure for the yes/no elliptical sentence in (45) will be the one in (46).

- (45) Ton Yorgo ton thelume stin eteria, ala ton aderfo tou ohi.  
 the Yorgos-ACC ACC-CL want-1PL in the company, but the brother-ACC- his no.  
 'We want George in the company but not his brother.'

(46)



The analysis I would like to propose is couched within the Minimalist Program. More specifically, following Chomsky (2000, 2001) I assume that a lexical item has certain properties, *features*, before it enters the syntactic derivation. These features can either be uninterpretable (uF) or interpretable (iF). The former are syntactic features that enter the derivation unvalued and are assigned value by entering into an agreement relation with matching interpretable features. This agreement is implemented via the operation AGREE. As soon as Agree takes place, the uninterpretable features- now valued- must be eliminated from the syntactic derivation before the expression is sent to the semantic interface in order to avoid crash.

Implementing Chomsky's Agree theory in the yes/no ellipsis structure, I assume that, in yes/no ellipsis, the head Top, which acts as the probe bears an interpretable [iToP] feature and uninterpretable [u $\phi$ ] which have to be deleted before the expression is sent to LF; the object *ton aderfo tou* bears an uninterpretable [uToP] which makes it active for the Agree operation and interpretable [i $\phi$ ]. The [i $\phi$ ] of the goal assigns a value to the [u $\phi$ ] of the probe which can then be removed by Spell out from the narrow syntax. The interpretable [iF] of the head Top attracts the focused phrase bearing the matching [uTop] feature thus triggering movement of the focused phrase and subsequent merge of it to TopP.

### **5.3 A movement approach to CLLD**

The analysis proposed in the previous section – that the remnant in yes/no ellipsis is a CLLD-ed element occupying SpecTopP – is in clear contrast with various proposals that CLLD-ed elements are base-generated in the left periphery and are adjoined to IP (Anagnostopoulou 1997, Cinque 1990). Evidence has been presented for the existence of the separate topic position. In this section, I would like to extend the above analysis by proposing that the dislocated DP ends up in SpecTopP having moved from an IP-internal position. In this, I adopt Cecchetto's (2000) movement approach to CLLD and I show how this analysis adequately explains the case connectivity effects and island constraints.

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<sup>9</sup>But see Chomsky (1995) for a different view.

### 5.3.1 Cecchetto (2000)

Cecchetto's (2000) basic proposal is that a CLLD-ed direct object is not base-generated in its surface position. It moves there from its thematic position via an intermediate position; the trace of the object in this intermediate position is activated at LF. The crucial evidence in favour of this movement approach comes from a set of empirical data that suggest that the dislocated object reconstructs at LF in a position which is c-commanded by a preverbal subject but not by a postverbal one.

- (47) \*L'opera prima di [uno scrittore]<sub>i</sub> pro<sub>i</sub> la scrive sempre volentieri.  
The first work of a writer (he) CL writes always with pleasure.  
(Cecchetto 2000: (7))

In (47) the indicated coindexing between the *pro* subject of the sentence and the DP *uno scrittore*, embedded within the dislocated DP *l'opera prima di uno scrittore* renders the sentence ungrammatical. According to Cecchetto, the ungrammaticality can be explained in terms of a violation of Principle C. This suggests that at LF the dislocated object must reconstruct to a position c-commanded by the preverbal subject *pro*, in which case Principle C will rule out (47) since the DP *uno scrittore* will be bound by *pro*. The reconstruction effect observed forces the conclusion that the CLLD-ed object must move from a position within IP where it leaves its trace. If *pro* occupies SpecAGRSP, the trace of the dislocated object that is activated at LF must be lower than AGRSP<sup>10</sup>.

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<sup>10</sup>Frascarelli and Hinterhölzl (2007) use similar reconstruction effects to show that topics that are doubled by the clitic are merged directly and base-generated at COMP.

- (i) La mia foto con Leo<sub>i</sub> lui<sub>i</sub> non l'ha ancora mostrata.  
The my picture with Leo he not CL have still shown.  
'He has not yet shown my picture with Leo.'

In (i) the intended coindexing does not lead to Principle C violation; this constitutes evidence that the dislocated object does not start from within IP. However Cecchetto shows that the obviation of Principle C effect is due to the fact that in examples like (i) the subject is focalised and moved to this position from its postverbal one which does not c-command the reconstructed object. Evidence suggesting that *lui* is focalized comes from (ii). As Rizzi argues, in main clauses wh-phrases occupy SpecFocP.. If *lui* in (i) is focalised, then we should expect that co-occurrence of a wh-phrase and the subject should lead to ungrammaticality. This is confirmed in (ii).

- (ii) \*Quale foto con Leo<sub>i</sub> lui<sub>i</sub> non ha ancora mostrata?  
Which picture with Leo he not CL have still shown.

Therefore the argument presented in Frascarelli and Hinterhölzl does not invalidate a movement approach of clitic-resumed topics.



However, Cecchetto observes that similar binding effects do not surface with postverbal subjects, as shown in (48).

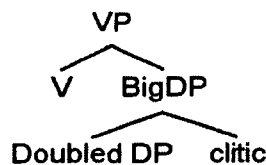
- (48) L'opera prima di [uno scrittore]<sub>i</sub> la scrive sempre lui<sub>i</sub>.  
 The first work of a writer CL writes always he.

(Cecchetto 2000: (8))

Under the assumption that the object reconstructs, the absence of a Principle C violation in (48) suggests that the reconstruction site is not the argumental position, where the reconstructed object would be c-commanded by the postverbal subject found at SpecvP<sup>11</sup> but an intermediate position between vP and AGRsP.

Cecchetto's proposal for the lack of Principle C effects in (48) is that the dislocated object originates in the thematic object position of the verb but moves to the left periphery via an intermediate position in which the trace is activated at LF. Adopting Torrego's (1992) analysis of clitic doubling, Cecchetto argues that clitics are full words, inserted right from the lexicon as the head of a functional projection, BigDP, with the doubled DP as its specifier.

(49)



The entire BigDP is generated in the argument position for the direct object, as it is shown in (49) above but it evacuates the thematic position and moves as a maximal projection to the specifier position of an XP, probably AGroP, which is close enough to the final landing site of the clitic. It thus follows that the copy of the dislocated DP in SpecBigDP will be carried along by the BigDP. Therefore, when the dislocated object reconstructs, the reconstruction site is no longer the argumental position but the new position that BigDP has moved to. Since this position is higher than vP, it will not be c-commanded by the postverbal subject, at SpecvP.

Further evidence that a CLLD-d object starts from within an IP internal position comes from quantificational data.

<sup>11</sup>As Cecchetto points out, nothing changes in the analysis if the postverbal subject is right adjoined to VP.

- (50) Qualche compito, Gianni lo assegna a ogni student.  
 some homework Gianni it gives- 3SG to every student.  
 ‘Gianni assigns some homework to every student.’

In (50), the IP internal quantifier *ogni student* can have a wide scope over the existential quantifier *qualche compito*. This can only be possible if the dislocated object is c-commanded by the universal quantifier which naturally leads to the conclusion that it originates in an IP internal position. If it was merged directly in its surface position it should be impossible for the universal quantifier to have scope over it.

### 5.3.2 Extending the analysis to yes/no ellipsis

Assuming then Cecchetto’s movement approach to CLLD, I suggest that the remnant in yes/no ellipsis is not base-generated in its surface position at the left periphery of the second conjunct but moves there from its IP-internal position. Therefore for a yes/no elliptical construction, such as the one in (51), the structure I’m proposing is the one in (52).

- (51) A Antonio le he invitado, pero a Pedro no.  
 Antonio-ACC CL have-1SG invited but Pedro-ACC not  
 ‘As for Antonio I have invited him, but as for Pedro, I haven’t.’

(52)



According to the structure in (52), the remnant *Pedro*, direct object of the verb *invitado* starts from the thematic object position and then it moves to SpecTop. As seen earlier, movement is triggered by the [uTop] on the focused phrase which is valued by the [iTop] of the head Top under a Spec-head configuration. The movement approach offers a straightforward explanation for the island effects attested in yes/no ellipsis (see chapter 4).

- (53) \* To oti i Maria tha psifisi pali Pasok einai sigouro,  
 the that the Maria- NOM will vote-3SG again Pasok is-3SG certain,  
 ala o Yorgos ohi  
 but the Yorgos- NOM not  
 Intended reading: 'That Maria will vote once more for Pasok is certain, but it is not  
 certain that Yorgos will vote again for Pasok.'

The ungrammaticality of the sentence is due to a violation of the Sentential Subject Constraint, since the remnant *oYorgos*, as a CLLD-ed contrastive topic, moves out of a sentential subject, thus leading to an island violation. A similar explanation is available for the other islands. If, however, the remnant is taken to be a left dislocated element merged in its surface position and adjoined to  $\Sigma P$  (Kazenin 2000, López 1999) then we have no explanation as to why yes/no ellipsis should be sensitive to islands, since no extraction out of the islands would occur.

The case identity requirement also finds a straightforward explanation. As it was seen in the previous chapter, in yes/no ellipsis the case of the remnant in the elliptical conjunct must be the case that the fronted element would have in the non-elliptical form. The relevant data are repeated in (54)<sup>12</sup>.

- (54) Ton Yani, zitisa na ton do, ala ton Petro/ \*o Petros ohi.  
 the Yanis-ACC, asked-1SG to CL see, but the Petros-ACC/the Petros-NOM not

Under the analysis I'm assuming in this chapter, there is a full syntactic structure in the elliptical conjunct, parallel to the one in the antecedent clause and the CLLD-ed remnant originates within IP. It thus follows that Accusative case is assigned to the remnant via the Case assigning property of the verb. After Case has been assigned the object moves to the left periphery, in SpecTopP, and IP deletion takes place.

For the proponents of the pro-form theory who argue that the remnant is base-generated in its surface position, there is no straightforward explanation for the case connectivity effects. Since the remnant is merged in its surface position, one should expect nominative case, since that is the default case in Greek. Philippaki et al (2002) suggest that, in CLLD, the double, an adjunct merged to a clause peripheral position, is assigned case freely via coindexation with the clitic. This proposal is based on the similar assignment of nominative case to preverbal subjects. Based on the underlying assumption that preverbal

<sup>12</sup>The ungrammaticality of the example improves if the intended reading is 'but Peter didn't' in which case *Peter* would be contrasted to the null subject of the antecedent clause.

subjects are never in an EPP position (Alexiadou and Anagnostopoulou 2001, Philippaki-Warbuton 1987, Tsimpli 1995), but are always base-generated as adjuncts, Philippaki argues that the nominative case is assigned freely and is sanctioned by coindexation between the lexical subject DP and the morphological element which constitutes the proper subject. The same then can be applied to dislocated objects via coindexation with the clitic.

However, a first problem that this approach would face is that it violates the Inclusiveness Condition (Chomsky 1995: 228) which ensures that features are assigned to terminal nodes from the lexicon and non-terminal nodes can only inherit their features from their daughters. Given this principle, it is difficult to see how a dislocated constituent, either an object or a subject, which is merged as an adjunct, is assigned Case freely via coindexation.

Furthermore, the required assumption that preverbal subjects are directly merged as adjuncts to IP is also problematic; reconstruction effects with dislocated subjects show that these must reconstruct at SpecAGRsP (Cecchetto 2000).

- (55) [Sua<sub>i</sub> madre]<sub>j</sub> contro chi<sub>\*i</sub> t<sub>j</sub> testimonierà al processo?  
 His mother against whom witness-3SG- at the trial?  
 ‘Against who will his mother testify at the trial?’

(Cecchetto 2000: (20))

As Cecchetto shows, (55) with the intended coindexing is ungrammatical due to a WCO effect. This suggests that at some point in the derivation the order must be wh-operator-pronoun-trace of the operator. This configuration can be created only if the subject reconstructs at LF at SpecAgrsP, an intermediate position with the original copy of the subject being vP internal. The structure that we expect is the following:

- (56) [<sub>TopP</sub> [sua<sub>i</sub> madre]<sub>j</sub>] [<sub>FocP</sub> contro chi<sub>k</sub>] [<sub>AGRsP</sub> t<sub>j</sub>] [<sub>TP</sub> testimonierà [<sub>VP</sub> t<sub>k</sub>]]

The WCO is due to the crossing of the subject in the reconstructed position by the wh-phrase. These reconstruction effects suggest that dislocated subjects, in the same way as dislocated objects, originate IP internally, at SpecvP where they receive their case, and from there they move to SpecTopP via an intermediate site, SpecAGRsP.

Therefore, under the movement approach to CLLD case assignment is straightforward in both cases and no free assignment and explanation of coindexation between the clitic and the double needs to be postulated.

### 5.3.3 Free recursion of topics

A final issue that needs to be addressed is the position of topics in the COMP domain. I have so far assumed that the order of projections is the one in (57).

(57) ForceP..TopP.. FocP

However, Rizzi (1997) has argued that the topic projection can be recursive, based on data from Italian that show that CLLD constituents can occur either at the left or at the right of a focused constituent.

(58)a. A Maria, domani, DI QUESTO le dovremmo parlare.  
to Maria, tomorrow, about that to her we must talk  
'We must talk to Maria ABOUT THAT tomorrow.'

b. A Maria, DI QUESTO, domani, le dovremmo parlare.  
to Maria about that tomorrow to her we must talk  
'We must talk to Maria ABOUT THAT tomorrow.'

In (58), we see that the temporal adverb *domani* can surface either to the left or to the right of the focused constituent *di questo*. In order to capture the above data, Rizzi proposed the general schema in (59).

(59) (TOP\*) (FOC) (TOP\*)<sup>13</sup>

Therefore, according to the general schema in (59), we should expect that a yes/no ellipsis construction with the CLLD-ed object following a contrastively focused constituent should be possible. However, the ungrammaticality of (60) suggests that this is not the case.

(60) \*A GIANNI questo libro lo regalerete ma A MARIA quello libro no.  
To Gianni this book CL will give but to Maria that book not.  
[Intended reading: This book you will give to Gianni but that book, you won't give to Maria.]

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<sup>13</sup> The asterisk used in the example marks iteration.

I would like to propose that the ungrammaticality of (60) results from the fact that contrastive topics must always precede any operator projections in the left periphery.

Recent investigation of the left periphery suggests that several topic and focus projections must be identified in the left periphery with certain pragmatic and sometimes syntactic differences and thus should occupy different functional projections (Benincà and Poletto 2004). Regarding contrastive topics, it has already been shown that these must obligatorily occur in the left periphery (Alexopoulou 1996, Frascarelli and Hinterhölzl 2007, Kiss 2002, Molnár 2001). Furthermore it has been argued that contrastive topics occupy a relatively high position in the COMP zone, above Rizzi's operator field which hosts wh-questions and foci<sup>14</sup>).

Therefore, although there is the possibility of having a lower topic projection, within the IP domain, as often has been argued (Haegeman 2004, Vilkuna 1995), this position cannot host contrastive topics. The higher position of contrastive topics can offer an explanation for the contrast observed between (61) and (62).

(61) Juan cree que Pedro está enfermo pero María no.  
Juan believes that Pedro is ill but María not.  
'Juan believes that Pedro is ill but María isn't.'

(62) Juan siente que Pedro está enfermo, pero María no.  
Juan regrets that Pedro is ill but María no.  
'Juan regrets that Pedro is ill but María isn't.'

Bosque (1984) observes that sentences like (61), with a non factive verb, admit a double interpretation. The missing IP in the second conjunct can be either *Pedro está enfermo* or *María está enferma*. However, in (62) where the matrix verb is a factive verb, the missing IP can only be *Pedro está enfermo*.

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<sup>14</sup> In some languages contrastive topics seem to be in complementary distribution with contrastive foci (e.g. Finnish) whereas in others they can occur in the left periphery (e.g. Hungarian). Spanish, Italian and Greek seem to pattern with the former option judging from examples like in (i) where co-occurrence of contrastive topics and contrastive focus seems to be ungrammatical.

(i) \*A María, YO la he invitado, no Juan.  
A María, I CL-3SG-FEM have-1SG invited, not Juan

However, at this point one could only postulate this restriction for a single initial position for contrastive elements. Therefore I will assume that contrastive topics are higher than focused elements in the COMP zone.

Haegeman (2004), in a comparison between English Topicalization and CLLD, observes that the application of the former construction is restricted to root clauses<sup>15</sup> (and certain embedded clauses) whereas no such restriction applies to CLLD.

(63)a. \*When her regular column she began to write for the Times, I thought she would be OK.

(Haegeman, 2004: (3a))

b. An auto to vivlio to vris stin dhimotiki viltiothiki, boris na to paraggilis stin kentriki  
 If this the book CL find-2SG in the local library, can-2SG to order in the central  
 vivlithiki.  
 library

'If you can find this book in the local library, you can order it in the central library.'

(Haegeman, 2004: (26))

According to Haegeman, the contrast between (63a) and (63b) can be explained by the different position that the topicalized constituent occupies in the left periphery. She proposes a decomposition of the head Force by suggesting that subordinating conjunctions are inserted under the syntactic head Sub whereas the head Force is responsible for illocutionary force and epistemic modality. Therefore clauses may differ regarding the availability of the head Force; certain adverbial clauses, factive complements and sentential complements do not instantiate the head Force. The difference then between those 'reduced clauses' and root clauses (including embedded clauses that behave as root clauses) is the one in (64)

(64)a. Root clause: Top Focus Force Fin

b. Reduced clause : sub Fin

English Topicalization targets the TopP but since in reduced clauses the head Force is missing and thus every head that selects for Force, it is predicted that Topicalization should be ungrammatical, as confirmed by the data in (63a). On the other hand, according to Haegeman, CLLD-ed constituents target a lower TopP that selects for Fin; therefore CLLD is possible in reduced clauses, as shown in (63b). More importantly for my analysis, the author argues that

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<sup>15</sup> The analysis applies to fronted arguments and not fronted adjuncts where apparently this restriction does not apply.

other elements that target projections higher than Force, such as contrastive topics and focused constituents, are expected to be unavailable in reduced clauses.

Turning now to the contrast observed in (61)-(62), we observe that in (61) the matrix verb is a non factive verb whereas (62) is a factive verb. Following then Haegeman's analysis, the structure of the two sentences is given in (65a) and (65b) respectively.

(65)a. sub Top Focus Force Fin

b. sub Fin

In (65a), both the matrix clause and the embedded clause are full clauses that include ForceP and therefore both *Juan* and *Pedro* can function as contrastive topics. Therefore the contrastive remnant *Maria* can be parallel either to *Juan* or *Pedro*; thus the double interpretation of the sentence naturally follows. In (65b), however, the embedded clause is a reduced clause because the matrix verb is a factive verb. Consequently, *Pedro* cannot be a contrastive topic because ForceP and every projection higher than ForceP is not available. Therefore, the remnant can only be parallel to *Juan*<sup>16</sup>.

Summarising then, at least a higher and a lower topic position should be identified in the left periphery. Only the higher TopP can host contrastive topics. Therefore, the recursion of TopP position is only apparent and it does not pose a problem for the analysis proposed in this chapter.

#### 5.4 Polarity Focus and IP deletion

In this section I would like to show that the contrastive remnant induces focus on the polarity of the elliptical clause, expressed via the negative marker which functions as a focusing adverb. The negative adverb occupies SpecPolP whereas the feature [+F] of the head Pol<sup>0</sup> licenses the IP deletion.

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<sup>16</sup>If the above analysis is extended to subordinate conjunctions, which according to Haegeman, select for reduced CPs, then we have an explanation for the ungrammaticality of yes/no ellipsis in subordinate environments.



### 5.4.1 Contrastive topics and polarity focus

In the literature of contrastive topics, it is often suggested that the presence of a contrastive topic in the sentence induces a semantic focus on some other constituent in the sentence (Büring 1999, 2003, Gyuris 2004, Molnár 2001, Vallduví and Vilkuna 1998).

- (66) [CT Reykjavikiin] Pekka lensi [F Icelandairilla].  
'To REYKJAVIK, Pekka flew by ICELANDAIR.'

In the Finnish example in (66), Molnár (2001) shows that the contrastive topic *Reykjavikiin* imposes an additional narrow focus on *Icelandairilla*. The presence of the contrastive topic indicates that there are things other than the one referred to by the contrastive topic about which the same question could be asked, and it is possible that the answer to those questions would be different.

The above requirement of contrastive topics, that an additional element in the sentence bears the focus, seems to be supported by intonational facts as well; contrastive topics, which have a fall-rise accent, are typically followed by a constituent which carries the second intonational peak of the sentence (Gyuris 2004) and which is associated with a high tone accent, typical of focused elements (Büring 1999).

For the languages that are of concern here—i.e. Spanish, Greek and Italian - similar facts seem to hold. Arregi (2003) argues that CLLD, which he argues to be Contrastive Topicalization, forces narrow focus on some other part of the sentence. Similarly, Alexopoulou (1996) argues that, in Greek, when a contrastive topic is present, a contrast is usually implied in the focused part of the sentence as well. The relevant data from Spanish and Greek are shown in (67) and (68) respectively.

- (67) A Juan, le di LA MOTO.  
To Juan him I-gave the bike  
'Juan, I gave the bike.'

(Arregi 2003: (5))<sup>17</sup>

- (68) I Ana pige stin Kriti ME TO PLIO ke o Yorgos pige  
 the Ana-NOM went-3SG to the Crete with the boat and the Yorgos-NOM went-3SG  
 stin Kriti ME TO AEROPLANO  
 to the Crete with the aeroplane.  
 ‘Ana went to Crete by boat and George went to Crete by aeroplane.’

However, at this point it must be noted that the focus induced by the contrastive topic on the constituents in (67) and (68) need not, but can be, contrastive focus. The constituents *la moto* in (63) and *me to plio* and *me to aeroplano* in (64) are not contrastively focused in the sense that no correction with a previous statement is implied. Both sentences are felicitous as answers to wh-questions. On the other hand in (69), the focus on the subject is contrastive.

- (69) A María, la he invitado YO, no Juan.  
 A María, CL-3SG-FEM have-1SG invited I, not Juan.  
 ‘It was me that invited María, not Juan.’

This is consistent with Gyuris’s (2004) proposal that the semantic focus imposed by the contrastive topic can be either identificational focus (Kiss 1998), a quantifier position in the preverbal field, a verum focus (focus of the verb phrase/predicate) or a negative particle. The last two possibilities are exemplified in (70) and (71) respectively.

- (70) [CT Öt vendéggel [VP találkozott Mari]  
 five guest-with met Mary  
 ‘There are five guests whom Mary met.’

- (71) [CT Ötnél több vendéggel [NEGP nem találkozott Mari]  
 five-than more guests not met Mary  
 ‘It is not true that Mary met more than five guests’

Turning to the yes/no ellipsis data, I propose that the contrastive remnant induces focus on the polarity, which I will call polarity focus. The characteristic of this type of sentences is that they provide complete answers to yes/no questions (Gyuris 2004, Vilkuna 1995). Furthermore, the presence of the adversative conjunction *but* forces the polarity of the elliptical clause to be contrasted with that of the antecedent parallel clause<sup>18</sup> (Winkler 2005).

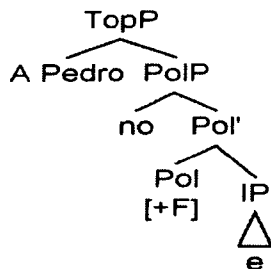
<sup>17</sup> The example is slightly changed.

<sup>18</sup> Some researchers call this type of focus contrastive, due to the fact that the truth value of the proposition expressed by the antecedent predicate is contrasted with the negation of the same. However, I will call it polarity

Therefore, a more complete structure for the yes/no construction in (52) (repeated here as (72)) is given in (73).

- (72) A Antonio le ha invitado, pero a Pedro no.  
 Antonio-ACC CL have invited but Pedro-ACC not  
 'As for Antonio I have invited him, but as for Pedro, I haven't.'

(73)



#### 5.4.2 The negative polarity marker as an adverb

In this section I would like to argue in favour of the idea that the negative polarity marker present in the elliptical clause must be considered as a focusing adverb that has the function of negating the polarity of the antecedent clause in the parallel elliptical sentence.

Previous accounts of yes/no ellipsis take yes/no ellipsis to be a base-generated empty category, *pro*, which is either a complement of the syntactic head  $\Sigma$  which encompasses negation and affirmation (Laka 1990) or adjoins via head to head movement to  $\Sigma$  (López 2000). The common characteristic of both analyses is that the negative marker is the head of negative  $\Sigma$  and that ellipsis cannot be licensed by empty heads.

- (74) El libro lo compré pero el periódico [ $\Sigma$ P no [pro].  
 The book CL bought-1SG but the newspaper not.

However, a closer examination of the negative marker used in yes/no ellipsis constructions in Greek and Italian shows that the negative marker used is not the sentential

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focus due to the fact that, in this thesis, contrastive focus has been assumed to be the special type of focus that implies the idea of correction and of exclusion of alternatives (Drübig 2003).

negator<sup>19</sup>. In fact, yes/no ellipsis is ungrammatical with the sentential negator, as shown by the Greek and Italian data in (75) and (76) respectively.

(75) \*I Maria efige ala o Yorgos dhen.  
the Maria-NOM left-3SG but the Yorgos-NOM not

(76) \*Il pesce lo mangio ma la carne non.  
the fish CL eat-1SG but the meat not.

Furthermore, Merchant (2001) shows that these negative short answers function are XPs and not heads. In order to determine the phase structural status of negative markers, Merchant proposes the ‘why not’ test, according to which, if a negative marker has the status of an XP, it will occur in the collocation *why not*; if, on the other hand, it has the status of a  $X^0$ , it will not. Applying this test to the sentential negators in Greek and Italian, it is shown that neither of them can appear in the collocation *why not*, thus suggesting that they behave more like  $X^0$ .

(77)a. \*giati dhen?

b. \*perchè non?

On the other hand, in both languages, the negative marker used in the aforementioned collocation is the short negative answer, the same that is used in yes/no ellipsis.

(78)a. giati ohi?

b. perchè no?

According to the test then, (78) suggests that these short negative answers seem to have the phrase structural status of XPs. It naturally follows then that an analysis of yes/no ellipsis that takes the negative marker to be the head of negative  $\Sigma$ , cannot be extended to Greek and Italian.

For Spanish, the above test is unrevealing, given that in the particular language the sentential negator and the negative short answer are the same morpheme. However, occasionally yes/no ellipsis can be licensed by other negative markers, as shown in (79).

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<sup>19</sup> See Merchant (2003) for a detailed comparison of the negative markers used in similar constructions in various languages.

- (79) 'El Pais' lo compro pero 'el Mundo' nunca.  
'El Pais' CL buy-1SG but 'el Mundo' never.

According to López (1999), *nunca* has the status of an XP since it can be modified by an adverb (e.g. *casi nunca* 'almost never'). Therefore, it seems that in Spanish as well, yes/no ellipsis can be licensed by an empty head.

I argue that the negative marker is a focusing adverb that has the function of negating the polarity of the antecedent clause in the parallel elliptical clause and is merged in SpecPolP. In that, I assume Cinque's (1999) analysis of adverbs, according to which adverbs, when present, are merged under a checking relation with a corresponding functional head.

## **5.5 Summary**

In this chapter, I argued that the remnant in yes/no ellipsis moves from within the IP to a clause peripheral position, SpecTopP, situated above IP, in the left periphery. I have also provided evidence that this movement is obligatory in order for the topic to have a contrastive interpretation. Furthermore I showed that the contrastive remnant imposes focus on the polarity of the sentence which is expressed through the negative marker. The negative marker, which is a focusing adverb, occupies SpecPolP.

## Chapter 6: A Minimalist analysis of stripping and negative-contrast

### 6.1 Introduction

The focus of this chapter is to provide a PF-deletion analysis of stripping and negative-contrast. As seen in previous chapters, stripping is a rule that deletes everything in the second conjunct of a coordinate structure leaving only one constituent, the remnant, and usually a negative particle or a focusing adverb that precedes the remnant. Its close relative, negative-contrast, has the characteristic that the coordination conjunction is absent. The two constructions are exemplified in (1a, b) for English, whereas their Greek, Spanish and Italian counterparts are given in (2), (3) and (4) respectively.

- (1) a. John loves swimming but not Peter.  
b. John loves swimming, not Peter.
- (2) O Petros milaei aglika (ala) ohi galika.  
the Petros-NOM speaks-3SG English but not French  
'Petros speaks English but not French.'
- (3) Juan habla inglés (pero) no francés.  
Juan speaks-3SG English (but) not French  
'Juan speaks English but not French.'
- (4) Antonio parla l'inglese ma non il francese.  
Antonio speaks-3SG the English but not the french  
'Antonio speaks English but not French.'

In the general literature on ellipsis, apart from Drübig (1994), who first identified the possibility of two different constructions and Busquets (2005, 2006), who notices a difference in the information structure of the remnant, no serious effort has been made to investigate the semantic and syntactic characteristics of the two constructions.

In chapter 3, I argued that the two constructions have to be differentiated with respect to the function of the remnant in Information Structure terms. I provided arguments that show that despite the apparent similarity, the type of focus on the remnant is different; stripping involves narrow information focus, whereas in negative-contrast the focused remnant carries

an additional contrastive reading.

The main goal of this chapter is to show that the aforementioned difference between narrow information focus and contrastive focus is also reflected in the syntax of the two elliptical constructions. Therefore, although a PF-deletion approach with prior movement of the remnant out of the IP is maintained for both constructions, it will be argued that the target site of the remnant is different; in negative-contrast, the remnant XP ends up in a high focus projection in the COMP domain where it gets a contrastive interpretation whereas in stripping, it targets a different focus projection found lower in the COMP domain, which is not associated with a contrastive interpretation.

The structure of the chapter is as follows: in section 2, I defend the feature-based approach to focus and more specifically I argue in favour of the idea that Spanish, Italian, English and Greek not only instantiate contrastive focus in the left periphery, but also exhibit a lower Focus projection with the semantics of narrow information focus. In section 3, I argue that stripping and negative-contrast involve movement of the remnant to the left periphery with subsequent deletion of the rest of the clause. The differences between stripping and negative-contrast naturally follow from the difference between contrastive focus and narrow information focus. It is shown that the remnant in stripping targets  $F_2P$ , which encodes information focus whereas the remnant in negative-contrast targets  $F_1P$ , a functional projection higher than  $F_2P$ , which gives the focused phrase an additional contrastive reading. In section 4, I present arguments against the idea that constituent negation is involved in stripping and negative-contrast. The idea is put forward that the negative marker present in the elliptical conjunct is not the sentential negation advocated by Pollock (1989) but a focusing adverb which is merged high in the COMP domain, in SpecPolP, a functional projection in the COMP domain that hosts focusing adverbs. PolP has the characteristic of having a focus projection as its complement. Section 5 provides a summary of the chapter.

## **6.2 *The syntax of focus***

### **6.2.1 Contrastive focus**

One of the most predominant theories of focus in the generative framework is the feature-driven approach to focus<sup>1</sup>. The theory advocates a direct mapping between focus and grammatical representation (Kiss 1998). Strong evidence for the idea that focus must be

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<sup>1</sup> For a comparison and critical evaluation of different approaches to focus, see Szendrői (2003).

represented syntactically comes from languages like Hungarian where focused constituents obligatory occupy a preverbal position, left-adjacent to the verb (Horvath 1995, Kiss 1998).

- (5) Mari **egy kalapot** nézett ki magának.  
 Mary a hat-ACC picked out herself-ACC  
 'It was a hat that Mary picked for herself.'

(Kiss 1998: (8a))

As seen in chapter 3, Kiss argues that this focus in the preverbal position is associated with an exhaustive interpretation ('identificational focus'). The preverbal focus in (5) is compared with the postverbal focus in (6) which merely expresses new information and thus it does not involve any syntactic movement<sup>2</sup>.

- (6) Mari ki nézett magának **egy kalapot**.  
 'Mary picked for herself a hat.'

(Kiss 1998: (8b))

Syntactically, identificational focus is thought to occupy an A' bar position which Brody (1990) has identified as SpecFP. The adjacency requirement between the focus and the verb is considered a verb second effect, similar to the one triggered by wh-movement.

However, apart from Hungarian, a type of focus preposing in the left periphery of the clause is also available in other languages, such as Italian (Rizzi 1997), Spanish (Escobar 1997) and Greek (Tsimpli 1995)<sup>3</sup>; in those languages, the focused constituent moves to the left periphery of the clause and binds a gap in its IP-internal position.

- (7) A GIANNI ho parlato t (non a Pietro). [Italian]  
 to Gianni (I) talked (not to Pietro)  
 'I talked to Gianni, not Pietro.'

- (8) A SUSANA ho invitado t (no a María). [Spanish]  
 Susana-ACC have invited (not María)  
 'I invited Susana, not María.'

This preverbal focus in Italian and Spanish is associated with a contrastive interpretation (Kiss 1998, Rizzi 1997), in the sense that the referent of the focused DP constitutes an alternative of

<sup>2</sup> In (5) and all the examples in this chapter, contrastive focus is set in small capitals, whereas narrow information focus (including Hungarian identificational focus) is set in bold type.

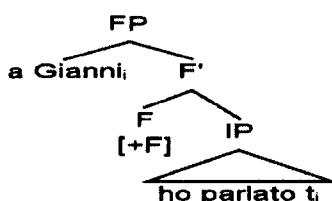
<sup>3</sup> See also Vallduví (1992) for Catalan and Laka (1990) for Basque.



a closed set of alternatives explicitly mentioned in the immediate discourse (see chapter 3 for more details).

Syntactically, Rizzi (1997) proposes that this focus preposing is an instance of A'-movement motivated by a Focus head that bears the feature [+Focus] and that projects in the left periphery of the clause. In the articulated C-domain that he posits, FP<sup>4</sup> is found between ForceP and FinitP; focused DPs merge with FP in order to enter into a Spec-head configuration with the relevant head. Thus, (7) will be represented with the structure in (9) (I ignore intermediate functional projections for simplicity).

(9)



The same structure is assumed for Spanish where also left-peripheral focus is associated with a contrastive interpretation (Escobar 1997)<sup>5</sup>.

Other characteristics that focus preposing shares with wh-movement which support a movement analysis of the construction are sensitivity to island constraints (Cinque 1990) and weak crossover effects (henceforth WCO). These are exemplified in (10) and (11) respectively.

- (10) \*A JUAN tengo la impresion de que conocí en Nueva York.  
 Juan-ACC have the impression of that met in New York  
 [Intended reading:] 'It is Juan who I have the impression that I met in New York.'  
 (Escobar 1997: (29))
- (11) \*A PEDRO<sub>i</sub> su<sub>i</sub> madre ha visto.  
 Pedro-ACC his mother saw  
 [Intended reading:] 'It is Pedro who Pedro's mother saw.'

Furthermore left-peripheral focus seems to license parasitic gaps, as shown in (12).

<sup>4</sup> In Rizzi's terminology, it is FocP. I will use FP, based on Brody's terminology, also adopted by Tsimpli (1995) for Greek.

<sup>5</sup> See chapter 3 for the difference between contrastive focus and Hungarian type identificational focus.

- (12) A JUAN he buscado durante meses sin encontrar t.  
 Juan-ACC (I) have looked for months without meeting  
 ‘It is Juan who I have looked for months without meeting.’

(adapted from Escobar 1997)

Contrastive focus in Italian and Spanish can also occur in situ. In this case it has been suggested that movement is delayed until LF (Drübig 2003). Evidence for covert movement is supported by the fact that focus in situ is also sensitive to WCO, as originally showed in Chomsky (1977).

- (13) \*Il sua<sub>i</sub> madre ha visitato PEDRO<sub>i</sub>.  
 His mother has visited Pedro  
 Intended reading: It is Pedro that his mother visited.’

If in (13), the focused NP *Pedro*, as a true QP<sup>6</sup>, undergoes movement to a left peripheral position, then the sentence with this particular coindexing is ungrammatical due to WCO effects.

### 6.2.1.1 Contrastive focus in Greek

Greek is another language that has optional preposing of focused expressions in the left periphery, as shown in (14).

- (14) TON PETRO simpathi i Maria.  
 the Peter-ACC likes-3SG the Maria-NOM  
 ‘It is Peter that Mary likes.’

Focus preposing in Greek exhibits all the characteristics of its Spanish and Italian counterparts; it is sensitive to WCO ((15)) and islands constraints ((16)) and it also licenses parasitic gaps ((17)) (Anagnostopoulou 1997, Iatridou 1990, Tsimpli 1995).

- (15) TON YANI<sub>i</sub> i mitera tou\*<sub>i</sub> thavmazi polu.  
 the Yanis-ACC the mother-NOM-his admires-3SG much  
 ‘It is John that his mother loves a lot.’

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<sup>6</sup> Lasnik and Stowell (1991) argue that the quantificational status of the focused NP is achieved if we assume that the focused NP contains an abstract covert operator, something like the silent counterpart of *only* and that it is this operator that carries the semantic import of focusing.

(16) \*TON YANI<sub>i</sub> sinantisa tin kopela pu ide.  
 the Yani-ACC met-1SG the girl-ACC that saw-3SG  
 [Intended reading:] 'I met the girl who saw YANI.'

(17) AFTO TO ARTHRO i Maria arxiothetise xoris na dhiavasi.  
 this the article the Mary-NOM filed-3SG without reading  
 'This article Mary filled without reading.'

Tsimpli (1995), adopting Brody's analysis of focus in Hungarian, argues that the focused constituent moves to FP, found above TP in Greek, without, however, specifying whether FP is associated with a contrastive interpretation. An indication that preverbal focus in Tsimpli's analysis must be interpreted as contrastive comes from the fact – pointed by Kiss (1998) – that the English translation of her examples is rendered with an *it*-cleft, which is associated with an exhaustive-contrastive reading. Most of the studies on focus in Greek seem to argue in favour of the idea that left-peripheral focus is obligatory contrastive (e.g. Georgiafentis 2001, Tsipalou 1998).

Another issue that arises with regard to focus in Greek is whether contrastive focus can also be expressed *in situ*. Some studies are against this idea, arguing that the contrastive interpretation of a focused element can only occur in the preverbal position (Alexiadou 2000, Baltazani 1999)<sup>7</sup>, whereas others admit that contrastive focus can also occur *in situ* (Georgiafentis 2001, Philippaki-Warbuton et al. 2002). In this thesis, I will follow the latter view, since most of the informants I have consulted found both possibilities equally acceptable; these are shown in (18).

(18) Q: O Manolis efage ta sokolatakia?  
 the Manolis-NOM ate-3SG the chocolates?  
 'Was it Manolis who ate the chocolates?'

A1: O PETROS ta efage (ohi o Manolis).  
 the Petros-NOM CL-ACC-PL ate-3SG (not the Manolis)  
 'It was Peter who ate them, not Manolis.'

A2: Ta efage O PETROS, (ohi o Manolis).  
 CL-ACC-PL ate-3SG the Petros-NOM (not the Manolis)  
 'It was Peter who ate them, not Manolis.'

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<sup>7</sup>Alexiadou's objections have to do with postverbal subjects. She argues that in the word order VOS, the subject cannot be contrastively focused.

### 6.2.1.2 Focus preposing in English

Summarising the discussion so far, we have seen that focus preposing in Italian, Spanish and Greek seems to be associated with a contrastive reading. The focused constituent merges with FP, a functional projection in the left periphery found above IP. However, contrastive focus can be in situ, in which case movement takes place at LF.

Turning now to English focus, contrastive focus in situ also seems possible in English.

(19) I invited JOHN to the party (not Peter).

This focus as well involves covert movement, since it is sensitive to WCO effects (Chomsky 1977).

(20) \*His<sub>i</sub> mother loves JOHN<sub>i</sub> (not Peter)<sup>8</sup>.

Turning now to overt focus preposing, English has a type of focus preposing (Culicover 1991), as shown in (21)<sup>9</sup>.

(21) BEANS I like.

It is generally assumed that the discourse function of this preposing is similar to left-peripheral contrastive focus in Italian; it is related to a closed set of contextually specified alternatives (Drübig 2003). Culicover (1991) includes this focus among the polarity-related constructions<sup>10</sup>, and he argues that the preposed DP is associated with an abstract polarity element, Focus, and occupies SpecPolP, a functional projection in the left periphery that can host polarity constituents. In that respect, PolP is similar to FP which hosts contrastively

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<sup>8</sup> Kiss tries to relate the ungrammaticality of focus in situ in English not to WCO effect but to the fact that *John* constitutes new information whereas the use of the pronoun presupposes that the name has been mentioned before. However, she admits that the Hungarian data give support to covert movement, since in Hungarian - where no WCO is induced by focus- the corresponding sentence is grammatical. If the ungrammaticality of (20) were due to new information, the same violation should arise in the Hungarian example too.

<sup>9</sup> This preposing in (21) must be distinguished from a similar one in (i). The difference is that in the latter, there is an intonational pause between the left-dislocated DP and the rest of the clause, represented with a 'comma', and the left-dislocated element functions as a topic.

(i) Beans, I like.

<sup>10</sup> Other constructions are affective inversion, emphasis and wh-phrases.

focused elements in Italian, Spanish and Greek. The difference between the Italian type focus preposing and the English one is that the latter does not trigger subject-aux inversion (Culicover 1991).

A problem that arises at this point is that focus preposing in English<sup>11</sup> seems to be more marginal than its counterpart in Romance and Greek<sup>12</sup>. The marginality of the construction is difficult to be accounted for under the assumption that all three constructions involve the same syntactic analysis, overt movement of a focused DP to SpecFP. Breul (2007), comparing focus preposing in English and German, suggests that the marginality of non-subject focus preposing in English in comparison to German may be attributed to two factors, a) the lack of verb second effect in English focus preposing and b) the lack of morphological case. Following Hawkins's processing theory, Breul argues that whereas in English the constituent that has to be processed would be 'non-subject focused DP-subject-verb', in German, due to the verb second effect, the constituent is shorter (object-verb) and thus easier to process by the hearer<sup>13</sup>. Furthermore, in German, morphologically accusative case on a DP allows an immediate identification of the grammatical status of the DP as object, either it is preposed or not. On the other hand, in English, where there is no morphological case distinction, a preposed DP can only be identified as the object only after the main verb has been processed, thus making the preposing order harder to process than the canonical order.

Independently of Breul's explanation, it also has to be pointed that English, in contrast to Spanish and Greek, has various other ways of marking focused constituents syntactically, such as *wh*-clefts, HNPS, and *it*-cleft (Prince 1999, Rochemont and Culicover 1990). Thus, the marginality of this type of focus preposing may be attributed to possible semantic and pragmatic differences between the various focus constructions (Prince 1999)<sup>14</sup>.

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<sup>11</sup> In all the examples, I only consider movement of an object because movement of a subject seems more natural since in English the subject must occupy a preverbal position anyway. Thus movement of the subject from SpecIP to SpecFP wouldn't make a difference in the word order.

<sup>12</sup> For some these examples are not grammatical or at best very marginal because focus preposing is assimilated with Yiddish-movement, which occurs in a non-standard variety of English. However, see Prince (1999) for the difference between focus preposing in Standard English and Yiddish movement.

<sup>13</sup> This also may be the reason why subject preposing is more natural than object preposing in English. Since the canonical order is SVO, the constituent to be processed is smaller than if the object is preposed.

<sup>14</sup> It is true that negative-contrast in English seems better with an *it*-cleft construction than focus preposing. Compare (i) and (ii) below.

- (i) It is beans I like, not chickpeas.
- (ii) Beans I like, not chickpeas.

For the purpose of the analysis assumed in this chapter, I leave aside the question of the marginality of English preposing and I assume that the construction has the same function as its Romance and Greek counterparts.

### 6.2.2 Narrow information focus

In the previous section, it was shown that contrastive focus in Italian, Spanish, Greek and English might involve overt movement to FP, a functional projection in the left periphery of the clause that hosts focused constituents. In this section I would like to propose that overt movement is also involved in the case of narrow information focus. However, in the latter case, the landing site for the focused DP is not the same projection that hosts contrastive focus but a projection lower than FP, which I will call F<sub>2</sub>P. Secondly, since narrow information focus is always at the right, I suggest that it involves overt movement to the left periphery followed by IP remnant movement.

In chapter 3, it was seen that contrastive focus might be further subdivided into two different types depending on whether the set of alternatives is closed or open; the former is the contrastive focus of the Italian type whereas the second is the exhaustive focus of the Hungarian type which I will call ‘narrow information focus’. From the two types of foci only the former is necessarily related with a contrastive reading and subsequently with the idea of ‘correction’.

The difference between contrastive focus and narrow information focus can be shown more clearly in Italian and Greek where narrow information focus can never appear in the leftmost position of the clause; (22A1) and (23A1) are not acceptable in comparison to (22A2) and (23A2) which are perfectly fine.

- (22) Q: Chi è arrivato?  
Who has arrived?
- A1: \***Gianni** è arrivato  
Gianni has arrived.
- A2: È arrivato **Gianni**.  
Has arrived Gianni.  
‘Gianni has arrived.’

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However, it is not certain whether the marginality of (ii) is due to the general marginality of focus preposing in English or to some other independent factors. I leave that open for future research.

(23) Q: Pjon ides xthes?  
who-ACC saw-2SG yesterday  
'Who did you see yesterday?'

A1: \*Ton **Manoli** ida.  
the Manolis-ACC saw-1SG

A2: Ida ton **Manoli**.  
saw-1SG the Manolis-ACC  
'I saw Manolis.'

When focus is contrastive, both choices are grammatical, as shown in (24) for Italian. The same applies in Greek and Spanish.

(24) Q: È arrivato Paolo?  
has arrived Paolo?

A1: GIANNI è arrivato (non Paolo)  
Gianni has arrived (not Paolo)  
'It is Gianni that has arrived (not Paolo).'

A2: È arrivato GIANNI, (non Paolo).  
Has arrived Gianni.  
'It is Gianni that has arrived (not Paolo).'

Even in English, a reply with focus-preposing or an it-cleft is unacceptable, as shown in (25A2) and (25A3) respectively, when the discourse context does not provide explicitly mentioned alternatives.

(25) Q: What did you order?

A1: I ordered **pizza**.

A2: \*PIZZA I ordered.

A3: \*It is PIZZA I ordered.

Evidence that narrow information focus must also be considered operator focus which involves syntactic movement comes from the fact that it is sensitive to WCO effects; the coindexing in (26) induces a WCO violation whether the postverbal subject is contrastively

focused or information focus (Belletti 2004). This suggests that narrow information focus involves covert movement in a parallel fashion to contrastive focus in situ seen earlier.

- (26) \*Attualmente, in un suo<sub>i</sub> appartamento vive **Gianni**<sub>i</sub>/GIANNI<sub>i</sub>  
At present, in his own apartment lives John

(Belletti 2004: ftn 61)

Further evidence for a movement approach to information focus comes from fragment answers. In the aforementioned examples, (22) and (23), the most natural reply to the wh-question, would only include the part of the sentence that corresponds to the wh-word. This is shown in (27) and (28) for Italian and Greek respectively.

- (27) Q: Chi è arrivato?  
Who has arrived?

A: **Gianni**.  
Gianni.

- (28) Q: Pjon ides xthes?  
who-ACC saw-2SG yesterday  
'Who did you see yesterday?'

A1: Ton **Manoli**.  
the Manolis-ACC.

Assuming Merchant's (2004) analysis of fragments, the sentences in (27) and (28) result from IP deletion with prior movement of the fragmentary answer to the left periphery of the clause. As seen in chapter 4, this analysis is preferred, among other reasons, due to the fact that the fragment shows the same connectivity effects that its non elided counterpart would have. The full underlying structure prior to deletion is the one in (29).

- (29) Gianni [IP t è arrivato].  
Gianni has arrived

However, as we saw earlier, a wh-question is an appropriate discourse context not for a contrastive focus but for narrow information focus. Therefore the ellipsis data show that narrow information focus also moves to the left periphery (see also Brunetti 2003 for the same



conclusion). If the entire clause is present, then the focused constituent must remain in situ, as shown in (22A2), repeated here as (30).

- (30) È arrivato **Gianni**.  
Has arrived Gianni.  
'Gianni has arrived.'

### 6.2.3 IP Remnant Movement

The movement-deletion approach to the elliptical sentences in (27) and (28) suggests that, whether the DP-fragment is contrastive focus or narrow information focus, movement to FP must always be overt<sup>15</sup>, since covert movement does not necessarily involve pied-piping of the entire focused phrase to FP (Chomsky 1995). This, however, contradicts the aforementioned assumption that information focus involves covert movement.

Brunetti's (2003) solution to this problem is that in the case of information focus, deletion of IP is compulsory for pragmatic reasons thus rendering the movement invisible, whereas this is not the case for contrastive focus. However, this idea has the undesirable effect that deletion is made dependent on any pragmatic differences that may exist between information focus and contrastive focus. Furthermore, it is problematic under the feature-driven approach to focus which assumes that there is one-to-one relation between position and function.

Another solution, consistent with the feature-driven approach to focus, which I would like to adopt, is that covert movement of information focus is recaptured in terms of overt movement followed by remnant<sup>16</sup> (IP) movement. According to this analysis, the postverbal subject in (30) moves from its argumental position to FP but this movement is obscured by the subsequent movement of the remnant IP to a position higher than FP, where the remnant becomes topicalised. This idea has been implemented in Baltazani (1999) for Greek focus constructions. Baltazani argues that information focus involves A'-movement to the left periphery and then the rest of the IP moves to GivenP, a projection that sits between higher than the one hosting the focused phrase. When the IP moves there, it becomes topicalised. Evidence in favour of this double movement comes from complex predicates in Greek.

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<sup>15</sup> Unless one chooses to follow an LF-copying approach to ellipsis, as advocated by Lobeck (1995) and Chung et al. (1995). However, see arguments against this proposal in chapter 5.

<sup>16</sup> In order to avoid confusion, I will refer to the remnant of deletion as e-remnant and to IP movement as remnant movement.

- (31) O Yanis      pire      t apo to trapezi ehtes      **to klidi.**  
 the Yanis-NOM took-3SG from the table yesterday the key-ACC.  
 ‘Yanis took the key from the table yesterday.’

(Baltazani 1999: (66b))

The sentence in (31) involves a postverbal focused constituent. According to Baltazani, if the information focus does not involve any syntactic movement, then it is difficult to account for the fact that the PP and the adjunct intervene between the verb and its complement. However, if we assume that (31) is derived by movement of the focused object to FP and subsequent remnant movement of the IP to GivenP, situated above FP, then the adjacency of the verb and the PP naturally follows<sup>17</sup>. The fact that the IP moves as a constituent is shown by the fact that it can be conjoined with another IP, as shown in (32).

- (32) O Yanis      pire      apo to trapezi ehtes      ke evale  
 the Yanis-NOM took-3SG from the table yesterday and put-3SG  
 stin tsanda simera **to klidi**  
 in-the bag today the key-ACC  
 ‘Yannis took from the table yesterday and put in the bag today the key.’

(Baltazani 1999: (66c))

Following then this line of approach, the rightmost position of narrow focus does not create a problem for the ellipsis configuration in (27) and (28), repeated below as (33) and (34).

- (33) Q: Chi è arrivato?  
 Who has arrived?

A: **Gianni.**  
 Gianni.

- (34) Q: Pjon      ides      xthes?  
 who-ACC saw-2SG yesterday  
 ‘Who did you see yesterday?’

A1: Ton **Manoli.**  
 the Manolis-ACC.

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<sup>17</sup> Baltazani’s analysis involves other intermediate projections which I omitted here, since they do not affect the general analysis which involves movement of the DP for focus requirements and subsequent movement of the rest of the IP to a topic position above the focused DP.

The fragment overtly moves to SpecFP, thus creating the ellipsis configuration. If ellipsis does not take place, (33) and (34) involve an additional remnant movement that results in the rightmost position of the fragment<sup>18</sup>. The difference between narrow information focus and contrastive focus is that in the former remnant movement is compulsory whereas in the latter it is not<sup>19</sup>.

#### 6.2.4 Multiple focus projections

In the previous section it was suggested that both contrastive focus and narrow information focus involve overt movement of the focused DP to the left periphery of the clause. The obligatory rightmost position of narrow focus is an effect of subsequent remnant movement of the IP in GivenP, where it becomes topicalised.

However, the question that arises at this point is how foci that end up in the same structural position can have a different meaning. One possible explanation would be that both foci target the same position and the difference between contrastive and information focus is due to pragmatic factors, as suggested in Brunetti (2003). However, the idea that two semantically different types of focus target the same position is undesirable under the assumption that there is one-to-one relation between position and function.

Another solution would be to postulate an additional focus projection that is not associated with a contrastive interpretation. The position is put forward in recent studies on the cartography of the left periphery that suggest that the left periphery is much richer and more articulated than discussed in Rizzi (1997). Although Rizzi's basic hierarchy of ForceP..TopP..FocP is retained as the starting point, several studies argue not only that the left periphery has to be enriched with more functional projections (Cinque 1999, Rizzi 2004) but also that the traditional Topic and Focus projections must be split into several projections which correlate with specific pragmatic properties of topicalised and focused elements (Benincà and Poletto 2004, Drübig 2003, Frascarelli and Hinterhölzl 2007).

Along these lines, Drübig (2003) argues that narrow focus – whether the Italian contrastive type or the Hungarian exhaustive type – is licensed by an operator with

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<sup>18</sup> I assume that in languages, where narrow information focus can be found in a left peripheral position, such as Basque (Franco and Landa 2006, Molnár 2001), remnant movement does not need to apply.

<sup>19</sup> This suggestion of course needs further elaboration, especially the question how remnant movement is triggered. A suggestion made by Frascarelli and Hinterhölzl (2007), is that IP inversion is triggered by an EPP feature in the C-domain which has to do with scope or discourse-related properties. The fact that in VOS, the VO must be topicalised, points to the same direction. Of course, the problem still remains why remnant movement should be optional in the case of contrastive focus but compulsory in the case of information focus.

quantificational-like properties and this operator triggers preposing of the focused constituent to Spec of a functional projection the head of which is Pol. The quantificational operator that the focused element is associated with can be an overt polarity element, such as *only*, *even*, *not* (Culicover 1991) or a silent operator<sup>20</sup>. However, Drübig postulates two different functional projections associated with focused constituents; a high Pol<sub>2</sub>P in the C-domain and a lower Pol<sub>1</sub>P in the INFL. The difference then between the two types of operator-focus depends on which of the two PolPs the focused constituent moves to. Both PolPs can host the same polarity constituents but the scope of the morphemes is different. When Pol<sup>o</sup> occurs in INFL it has an exhaustive reading<sup>21</sup>, when it occurs in the C- domain it has a contrastive reading.

Therefore, according to Drübig's proposal, focused constituents in Modern Greek, Italian and Spanish target SpecPol<sub>2</sub> and will be thus associated with a contrastive interpretation whereas focus in Hungarian targets Spec Pol<sub>1</sub>P where it will receive an exhaustive reading.

Benincà and Poletto (2004) present a similar proposal, which I will adopt here. They argue that Rizzi's (1997) FP in the C-domain must be split to several focus projections. Depending on the projection that the focused constituent ends up, it will acquire specific semantic and pragmatic properties. Their point of departure is sentences, such as (35), in which, according to Rizzi's standard analysis, the lower DP *a Gianni* is a topic that occupies Spec of a TopP, found lower than FP. This analysis is based on the assumption that a topic projection can iterate but a focus projection cannot.

- (35) QUESTO a Gianni, domani, gli   dovremmo dire!  
 This to Gianni, tomorrow, CL-DAT should- tell  
 'Tomorrow we should tell this to Gianni.'

(Benincà and Poletto 2004: (5a))

Benincà and Poletto, arguing against the idea that topics can iterate, show that *a Gianni* is not a topic but rather a focused constituent occupying the Spec of a lower focus projection, situated in the C- domain which hosts non contrastive focused elements (narrow information focus). An argument in favour of the idea that the lower DP functions as a focused constituent, occupying Spec of a lower of FP (henceforth F<sub>2</sub>P) comes from the fact that the lower DP seems to be sensitive to WCO effects.

<sup>20</sup> Drübig assumes the existence of a silent exhaustivity operator in the spirit of Lasnik and Stowell (1991)

<sup>21</sup> The latter corresponds to Laka's (1990) ΣigmaP, which hosts emphatic affirmation and negation.

- (36)a. \*A MARIA<sub>i</sub>, Giorgio sua<sub>i</sub> madre presenterà  
to Maria Giorgio her mother will introduce  
'Her mother will introduce Giorgio to Maria.'
- b. \*A MARIA, Giorgio<sub>i</sub> sua<sub>i</sub> madre presenterà.  
to Maria Giorgio his mother will introduce  
'His mother will introduce Giorgio to Maria.'
- c. \*A MARIA, Giorgio<sub>i</sub> sua<sub>i</sub> madre lo presenterà  
to Maria Giorgio his mother CL will introduce  
'His mother will introduce Giorgio to Maria.'

(Benincà and Poletto 2004: (11))

In (36) the contrastively focused DP *A Maria* is sensitive to WCO, as expected since it is a focused constituent. However, (36b) shows that the second DP is also sensitive to WCO, which is unexpected under the assumption that it functions as topic. Therefore Benincà and Poletto conclude that it must be a focus. Further evidence that this DP functions as a focus comes from the fact that it cannot co-occur with the resumptive clitic, as shown in (36c).

Further evidence that the two types of foci involve different structural positions comes from the fact that they seem to conform to different restrictions. In the case of contrastive focus in Italian, Greek and Finnish, an element has to move to the leftmost position of the clause in order to be associated with a contrastive interpretation; (37A1) is an appropriate continuation of (37) because the focused constituent refers to a contextually limited set of alternatives explicitly given in the previous discourse. However, focus-preposing is not an appropriate answer in (38) because the constituent question does not specify any alternatives. Furthermore contrastive focus does not need to be verb-adjacent (Drübig 2003, Molnár 2001, Rizzi 1997), (39) is perfectly fine with the preverbal subject intervening between the focused constituent and the verb<sup>22</sup>.

- (37) Q: È arrivato Paolo?  
has arrived Paolo?

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<sup>22</sup> In Spanish there seems to be an adjacency requirement for contrastive focus. Different explanations have been given regarding this contrast between Italian and Spanish. Rizzi argues that this is due to a parametric variation regarding the Focus head; in Italian the focus feature is inherently possessed in the F head and thus no movement of an inflectional head is required. On the other hand, in Spanish the focus feature is located in the inflectional system and thus movement of the verb to focus head is obligatory. According to Zubizarreta, this subject-aux inversion in Spanish may be attributed to the verb-second structure of the language (Zubizarreta 1998).

A1: GIANNI è arrivato (non Paolo)  
Gianni has arrived (not Paolo)  
'It is Gianni that has arrived (not Paolo).'

A2: È arrivato GIANNI, (non Paolo).  
Has arrived Gianni.  
'It is Gianni that has arrived (not Paolo).'

(38) Q: Chi è arrivato?  
'Who has arrived?'

A1: \***Gianni** è arrivato  
Gianni has arrived.

A2: È arrivato **Gianni**.  
Has arrived Gianni.  
'Gianni has arrived.'

(39) QUESTO Gianni ti dira (non quello che pensavi)  
'This Gianni will say to you, (not what you thought).

(Rizzi 1997: (48))

On the other hand, in Hungarian the focus operator must be adjacent to the finite verb, but is not necessarily related to contextually specified alternatives.

(40) Q: Hova repült Péter?  
where flew Peter  
'Where did Peter fly?'

A1: Péter [FOCUS **Reykjavikba** ] repült.  
Peter to Reykjavik flew  
'Peter flew to Reykjavik.'

A2: \*[FOCUS **Reykjavikba** ] Péter repült.

(Molnár 2001: (10))

Basque also yields strong evidence for the assumption of two contrast related focus positions. In Basque, both types of contrast-related focusing are possible: (41a) shows the verb related focus (here in sentence-initial position, but as (41b) shows verb-adjacency is essential for grammaticality), and contrastive focus on the left periphery of the sentence, (42B) excluding a contextually explicit alternative (42A), without the restriction on verb-adjacency:

(41)a. PATATAK *maite ditu* Jonek.  
potatoes love AUX Jon  
'It is potatoes that Jon loves.'

b. \*PATATAK Jonek *maite ditu*.

(Molnár 2001: (11))

(42) A: MIKELI, ardoa *ekarri diote*.  
for-Mikel wine bring AUX  
'It is for Mikel that they brought wine.'

B: JONEK, ardoa *ekarri du*.  
Jon wine bring AUX  
'It is Jon that brought the wine.'

(Molnár 2001: (12))

Therefore, the focus operator operating either on a contextually *open* or *closed* set requires syntactic movement. Movement to the verb-adjacent Focus position can be overt, as in Hungarian and Basque but it can also be in situ, as in English, Italian and Greek, as seen previously. On the other hand, for contrastive focus of the Italian type, where alternatives are excluded from a *closed* set, movement is not necessarily verb-related, but in this case the left-peripheral position is decisive.

The postulation of multiple focus projections has the welcome effect that it allows us to maintain the one-to-one mapping between syntax and semantics, since the different interpretations of topicalised and focused constituents are always dependent on the syntactic configuration.

### 6.3 *The analysis*

In this section I would like to show that the postulation of two different focus projections in the C-domain can be applied to the domain of stripping and negative-contrast in the sense that the different semantic interpretation of the remnant is closely related to the different syntactic position that it occupies in the C-domain.

In chapter 4, I presented arguments in support of the idea that stripping and negative-contrast should be analyzed under the PF-deletion approach, according to which both constructions involve a full underlying clause in the second conjunct which is not pronounced at PF but which remains active for interpretation at LF. More specifically, following Merchant's analysis of fragments, I propose that the remnant in stripping and negative-

contrast involves overt movement of the remnant to a focus projection in the C-domain, followed by deletion of IP. The structure then for a stripping sentence ((43)) will be the one in (44)<sup>23</sup>.

(43) Lisa likes mathematics but not physics.

(44) ... but not [<sub>FP</sub> physics<sub>i</sub> [<sub>IP</sub> ~~Lisa likes t<sub>i</sub>~~].

Based on these assumptions, focus is taken to be an abstract head (which in some languages can also have a morphological manifestation) that bears an interpretable focus feature [iF] and uninterpretable [u $\phi$ ]. Keeping in line with Rizzi's cartographic approach, the focus head is located in the C-domain, higher than IP. The [u $\phi$ ] feature of the F<sup>o</sup> acts as a probe that searches the closest c-commanded goal with matching interpretable features, thus the DP object *physics*. Consistent with Chomsky (2001) and also Rizzi (2006), I will assume that the lexical item, *physics*, enters the syntax with a set of [i $\phi$ ] features and a focus feature [uF] yet unvalued. The DP is first merged with the verb in order to satisfy the thematic property of the verb and its [i $\phi$ ] checks under feature – matching the [u $\phi$ ] of the Focus head. Once checked, the [u $\phi$ ] is eliminated from the syntax before the semantic rules apply. Valuation of the [uF] of the goal is achieved through the pied-piping of the focused DP; under the Spec-head configuration the [iF] of the Focus head checks the [uF] of the goal. Once movement of the remnant has taken place, the IP that is left behind is semantically parallel to the IP of the antecedent clause and therefore it becomes redundant and deleted at PF.

Under the analysis supported here, the observed case connectivity effects that stripping and negative-contrast are subject to (see chapter 4) follow in a natural way; the remnant, whether a subject or an object, will be first merged in its thematic position; this first merge satisfies the case features. From this position it is pied-piped in order to be closer to the focus head.

(45) Zitisa            na do **ton Yani**,    ala ohi **ton Yorgo**/ \*ohi o Yorgos.  
 asked-1SG to see the Yani-ACC, but not the Yorgos-ACC/not the-NOM Yorgos.  
 'I asked to see John, (but) not George.'

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<sup>23</sup> For the moment, I ignore the position of negation in the structure. This will be dealt in section 4.



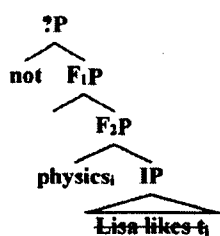
If focus movement is an instance of A'-movement, then we correctly predict the island effects, shown in (46).

- (46) \*That **Mary** was late again annoyed Peter, but not **John**.  
 [Intended reading]: That **Mary** was late annoyed Peter, but that **John** was late didn't annoy Peter.

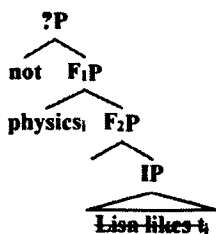
### 6.3.1 Non-uniformity of Focus, Stripping and Negative-Contrast

Turning to the contrast between stripping and negative-contrast, based on the assumption that it is possible to have multiple focus projections in the left-periphery, as shown in section 6.2, the difference between the two constructions correlates with the functional projection that the remnant ends in. In stripping, the remnant moves to SpecF<sub>2</sub>P where it acquires the status of narrow information focus whereas in negative-contrast it ends up in SpecF<sub>1</sub>P, where it is assigned an additional contrastive reading. The structures which I propose for stripping and negative-contrast are the ones in (47) and (48) respectively.

(47)



(48)



## 6.4 The role of negation

As the analysis stands, it does not mention anything about the presence of the negative particle in stripping and negative-contrast. In this section I would like to argue in favour of the idea that the negative marker is not the standard sentential negation but a second negation found in a higher position in the C-domain. More specifically, I want to argue that *not*, as

found in stripping and negative-contrast, and its Spanish, Italian and Greek equivalent belongs to a specific class of adverbials (including *only*, *never*) called focusing adverbs (Rooth 1985, 1996) which are generally associated with focus. These adverbs are merged directly in the Spec of a functional projection, PolP<sup>24</sup> in the COMP domain whose head POL expresses polarity and has the characteristic of selecting a focus projection as its complement.

As seen previously in chapter two, Depiante’s analysis of stripping in Spanish assumes that the negative marker in stripping (as well as in negative-contrast) starts from within the XP when this is still in the IP-internal position and then the sequence *no XP* moves to SpecFP, as shown in (50) for (49).

- (49) Juan toma café pero [FP no té [IP e]  
 Juan drinks coffee but not tea

(50)



However, there are several objections to an analysis that involves constituent negation. First of all, regarding stripping, it can be shown that the negation has scope over the entire clause. According to Klima’s (1964) tests for sentential negation, structures which permit *either*-conjoining and the *neither*-tag must be considered to be instances of sentential negation.

- (51) a. sentential: Mary isn’t a happy person and John isn’t either.  
 constituent: \*Mary is a not happy person and John isn’t either.
- b. sentential: Mary isn’t a happy person and neither is John.  
 constituent: \*Mary is a not happy person and neither is John.

Applying these tests in stripping, it can be seen that *not* has sentential scope and it is not local negation.

<sup>24</sup> The name PolP is taken from Drübig (2003), although the syntactic analysis I’m proposing in this thesis differs from his.

(52)a. Mary is happy, but not John, and neither is Dan.

b. Jan is happy. but not Mary, and John isn't either.

Similar facts obtain in Greek stripping. Veloudis (1982), who has modified some of the above tests for Modern Greek<sup>25</sup>, shows that adjacency of the negative particle *ohi* and a DP in sentences like the ones under discussion here must not be interpreted as local negation.

(53) Proskalesa ti Maria ala ohi ton Giorgo, oute ke ton Yani.  
invited-1SG the Mary-ACC but not the George-ACC, neither and the John-ACC.  
'I invited Mary, but not George and neither John.'

(54) Eipa na min miliseis se pollous ala ohi se KANENAN/\*kanenan.  
said-1SG to not talk to many but not to nobody/\*somebody.  
'I said that you shouldn't talk to many people, not anyone.'

The aforementioned examples can be compared with true instances of constituent negation in Greek such as those in (55) and (56), which fail to pass Klima's criteria for sentential negation.

(55) \*Protimoun tis ohi entimes douliēs oute ke tis vromikes.  
prefer-3PL the not honest jobs-ACC, neither and the dirty.

(56) \*KAMIA ohi entimi doulia tin protimoun.  
Any not honest job-ACC it-CL-FEM prefer-3PL.

It also has to be observed that in all the stripping examples in Greek, the negative particle precedes the entire DP, whereas in the case of constituent negation, as in (55), it can fall within the boundaries of the DP. This is another indication that stripping involves not constituent negation, but rather sentential negation.

Furthermore, as Merchant (2004) points out, stripping in complex sentences allows a high reading of the negation; in (57), the negation can have scope over the matrix verb (*you didn't say that you were going to invite Susana*). This means that the negative marker is found in a high position where it can c-command the matrix IP. If the negative particle is merged

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<sup>25</sup> The relevant tests for Greek are among others, the occurrence of *ute ke* (neither and)-conjuncting and the acceptability of the emphatically stressed forms of indefinite quantifiers.

internally to the remnant DP, then it is difficult to find a straightforward explanation for the observed scope properties.

- (57) Dijiste que ibas a invitar a María, pero no a Susana.  
Said-2SG that you were going to invite-2SG María, but not Susana.  
'You said that you are going to invite María, but not Susana.'

Adjacency with a DP or an adverb does not always signify constituent negation. Lasnik discusses several instances of adjacency of *not* with adverbs.

- (58) Not often do I attend classes.  
(59) Not long ago, I attended an interesting lecture on archaeology.

Lasnik (1972) makes the interesting observation that, in (58), *not* must not be thought as merged directly within the adverbial, despite its adjacent position in surface structure. Exactly the opposite applies to (59) where *not* functions as an optional modifier which starts within the adverbial. For example, the former can only occur sentence initially, where a similar restriction does not apply to the latter.

- (60)a. \*I attend classes not often.  
b. I attended July's class not long ago.

Finally, the most striking difference, already observed by Klima (1964) and also pointed out in Lasnik, *not often* in (58) induces a subject-aux inversion whereas *not long ago* in (59) does not. This suggests that in the former case but not the latter, the negation of the adverbial somehow influences the entire sentence.

The data above confirm the hypothesis that adjacency of *not* with an adverb or an NP does not always mean that the negation is merged internally to this NP or adverb.

We have already seen reasons to believe that in stripping *not* has sentential scope. In relation to the above assumptions, observe that the sequence *not often* is grammatical in stripping constructions where the presence of *not long ago* leads to ungrammaticality.

- (61) I attend Lucy's classes but not often.  
(62) \*I attended Lucy's class but not long ago.

In stripping constructions, as with yes/no ellipsis, the presence of *but* requires the polarity of the elliptical clause to be different from that of the antecedent clause (Winkler 2005). In (61) this requirement is satisfied due to the fact that *not* is sentential negation. However, in (62), where the negation is internal to the remnant, there is no other element to establish a contrast with the antecedent clause and thus the sentence fails.

Finally, an argument in favour of sentential negation in stripping comes from the lexical elements used as coordinated conjunction. Whereas English and Greek mark coordinate conjunction with one lexical item, *but* and *ala* respectively, Spanish distinguishes between *pero* and *sino*. The first is used only to coordinate clauses and thus propositional entities whereas the second is used to coordinate phrases (Gallego 2004). *Pero* is ungrammatical with constituent coordination, as shown in (63b).

- (63) a. Juan tiene no un auto sino dos.  
 Juan has not one car but two.
- b. \*Juan tiene no un auto, pero dos.  
 Juan has not one car, but two.

Turning now to sentences involving stripping, we observe that only *pero* is acceptable, as shown in (64).

- (64) He invitado a María, pero no a Susana.  
 have-1SG invited Maria-ACC, but not Susana-ACC.  
 'I have invited María but not Susana.'

This reinforces the conclusion that we are dealing with clausal coordination and that the second conjunct involves ellipsis of a full clause. Interestingly the same data are observed in German that also distinguishes between sentential coordination with *aber* and phrasal coordination with *sondern* (Umbach 2004).

- (65) Bill hat nicht den Apfel, sondern die Banane gegessen.  
 Bill has-3SG not the apple, but the banana eaten  
 'Bill has eaten not the apple but the banana.'

(Umbach 2004: (23b))

- (66) \*Bill hat den Apfel, sondern nicht die Banane gegessen.  
 Bill has-3SG the apple, but not the banana eaten

(Umbach 2004: (23d))

The construction that corresponds to stripping in German ((67)) makes use of the sentential coordinator *aber*, thus confirming the fact that it must be the result of clausal ellipsis in the second conjunct, as proposed by Winkler (2005).

- (67) weil die Anna die Aufgabe lösen kann, aber nicht der Jan.  
because the Anna the problem solve can-3SG but not the Jan.  
'because Anna could solve the problem, but not Jan.'

(Winkler 2005: (116a))

#### 6.4.1 Obligatory deletion

One of the most problematic cases for a PF-deletion approach to stripping is the fact that deletion seems obligatory. According to the PF-deletion approach I'm assuming here, deletion is taken to be non-pronunciation at PF (Chomsky 1995). Taking an example of VPE, the ellipsis in (68) results from non pronunciation of the VP – represented within the brackets – at the level of PF.

- (68) Peter went to the party but Mary didn't [<sub>VP</sub> go to the party].

Following a similar approach to stripping and negative-contrast, I have suggested that (69a) is a result of (69b), where the IP, which constitutes background information, is not pronounced. However, the problem – already noted by Chomsky (1995: 126) – is that the full structure in (69b) is ungrammatical and would not arise in the first place.

- (69)a. I invited John, but not Peter.

- b. I invited John, but not Peter [\*I invited].

Although I do not have a proper explanation for the observed ungrammaticality, I would like to suggest that it correlates with the restriction of the occurrence of preverbal *not*. As noted above, Lasnik (1972) observes that with certain types of noun phrases and adverbs, there is the possibility of having *not* at a sentence-initial position and not on the right of Aux, as shown in (70).

- (70) a. Not everybody went to the party.

- b. Not often do I attend classes.

c. Not many people arrived.

c. Not always do I eat lunch.

However, Lasnik notes that this occurrence of initial *not* is not possible for most types of NPs and adverbials, as seen by the ungrammaticality of the examples below.

(71) a. \*Not several students attended the lecture.

b. \*Not Peter went to the party.

c. \*Not this man was responsible for the accident.

In the case of the adverbials, initial *not* is not ungrammatical, however, it does not trigger Subject-Verb inversion.

(72) Not long ago, I attended an interesting lecture on archaeology.

From examples such as the ones above, Lasnik concludes that sentence initial *not* can be combined with NPs and adverbials, which include an overt or inherent quantifier.

Turning now to the stripping data, we can observe that deletion seems to be obligatory in these cases where the remnant belongs to the types of NPs and adverbials that do not accept the initial *not*, as can be seen in (73c, d).

(73)a. Many people came to the party but not everybody [came to the party].

b. John and Mary attended the exhibition but not many of the others [attended the exhibition].

c. I like concerts, but not several people [\*like concerts].

d. Several people were responsible for the accident, but not this man [\*was responsible for the accident].

In (73a, b) where the remnant is a quantifier, the full non-elided clause is perfectly grammatical.

#### 6.4.2 *Not* as a focusing adverb

Since Pollock's (1989) seminal paper, negative sentences have been assumed to contain a NegP, headed by certain negative particles, such as *not* in English. Often, this

category is extended in order to include both affirmation and negation (Laka 1990). Parametric variation between languages has to do with the position of Neg; in English, Neg is argued to select for VP whereas in Romance languages, it selects for TP (Laka 1990).

Independently of the issue of the exact position of Neg in the hierarchy of functional projections, many studies have also supported the idea of a second Neg, positioned higher in the COMP domain. Kiss (2002) argues that the sentential negator *nem* in Hungarian, apart from its standard preverbal position, where it is thought to head a NegP and select for VP, can also appear in a higher position, preceding the preverbal focus. Kiss presents several arguments<sup>26</sup> that this adjacency of *nem* with preverbal focus is an instance of predicate negation and not constituent negation. Therefore she argues for a second NegP that is headed by *nem* and selects for FP<sup>27</sup>.

An alternative approach is to consider this preverbal *not* as a focusing adverb, similar to *only* and *even*, which has to select a focus projection as its complement. This idea, that negation has a connection to focus, is not new. Jackendoff (1972) proposed that *not* shares with *only* and *even* the characteristic that it can undergo association with focus.

(74)a. Bill only **saw** Sue. He didn't talk to her.

b. Bill only saw **Sue**. #He didn't talk to her.

(74a) and (74b) do not have identical meanings. If they had, the continuation would be perfectly acceptable in both. The different meaning depends on which constituent *only* is

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<sup>26</sup> For example Kiss shows that whereas in a standard double focus construction, one of the focused constituents can be in situ, this is not possible if the relevant constituent is negated by *nem*. This constitutes evidence against constituent negation, since constituent negation can appear in the rightmost position of the sentence.

<sup>27</sup> See also Foreman (1999) who postulates the existence of a higher NegP, merged above AgrSP in order to account for data from West Texas English (WTE) which exhibit a type of negative inversion, as shown in (i)

- (i) Ain't nobody doin' nothin' wrong  
'Nobody's doing anything wrong'.

(Foreman 1999: (2))

Foreman argues that examples like (i) are closely related with Standard English sentences where a preverbal *not* is present, as shown in (ii)

- (ii) Not everybody would agree with this plan.

According to the author, both types of sentences can be accounted for by introducing a NegP higher than normal sentential negation. The occurrence of *not* in Neg<sub>2</sub>P in (ii) is consistent with what had already been observed by Lasnik (1972), Jackendoff (1972) and Klima (1964), i.e. that sequences like *not everybody* cannot be considered constituent negation.



associated with. In (74a), where *only* is associated with the verb, the continuation is perfectly acceptable because what is under discussion is ‘what Bill did’. However, in (74b) what is under discussion is ‘the person that Bill saw’ and thus the continuation is irrelevant.

Jackendoff (1972) argues that a similar relation holds between focus and negation.

(75) Maxwell did not kill the judge with a silver hammer.

a. Kill the judge is not what Maxwell did with a silver hammer.

b. It is not with a silver hammer that Maxwell killed the judge.

(75) can be ambiguous between two readings, shown in (75a) and (75b); the first reading, (75a), is obtained if the negative particle *not* is associated with the VP whereas the second reading, (75b), results if the PP is focused. I will therefore assume that *not* in stripping and negative-contrast functions as a focusing adverb. Recall that both constructions are also possible with other focusing adverbs, as can be seen in (76).

(76)a. Everybody came, even Peter.

b. She doesn’t like anything else, only pizza.

Regarding the syntax of focusing adverbs<sup>28</sup>, I will follow Cinque (1999) and Rizzi (2004), who argue that adverbs are licensed in the Spec of dedicated projections. Cinque’s analysis of adverbial positions assumes that each adverb occupies Spec of a dedicated head in a fixed hierarchical order. The motivation behind this proposal is that similar types of adverbs crosslinguistically seem to occupy the same positions in the linear order of the sentence. Rizzi (2004) extends his (1997) Force... Top..Foc..Top...Fin..IP schema in order to include several projections which can host adverbs in their Spec<sup>29</sup>.

Taking into account the above assumptions, the negative particle in stripping and negative-contrast is predicate negation, which occupies the spec of PolP<sup>30 31</sup>, a functional projection in the left periphery hosting focusing adverbs. The Pol head has the characteristic

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<sup>28</sup> See Köning (1991) for a thorough overview of the semantics and syntax of focusing particles.

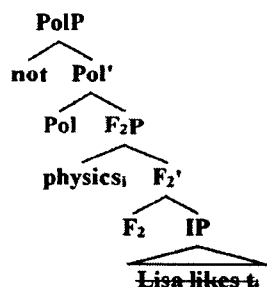
<sup>29</sup> Rizzi’s original proposal was that adverbs occurred either in Top or in FocP. However, Rizzi (2004) provides several arguments that although preposed adverbs can move to SpecTop or SpecFocP, they occupy distinct positions in the left periphery.

<sup>30</sup> Whether the PolP I’m advocating here can be assimilated to Rizzi’s (2004) ModP is a topic for further research.

<sup>31</sup> The name is borrowed from Drübig (2003), although the syntactic analysis proposed here is different than his.

that it must select a focus projection. Thus, the revised structure of the stripping construction shown in (47) will be the one given in (77).

(77)



In (75) the negative particle in SpecPolP is high enough to c-command the matrix clause, thus resulting in the high reading of the negation seen earlier. Furthermore, according to this analysis, the adjacency of the negative particle and the remnant is attributed not to constituent negation but to the fact that the head Pol merges with FP.

A potential problem for this analysis might arise from the fact that negative-contrast does not seem to allow a wide scope reading of the negation (Bosque 1984, Bruccart 1999).

(78) Dijiste que ibas a invitar A MARÍA, no A SUSANA.  
 said-2SG that you were going to invite-2SG María, not Susana.  
 ‘You said that you are going to invite María, not Susana.’

It is claimed that in (78) there is only one speech act of saying; in syntactic terms that would mean that the negation cannot scope over the the matrix clause. A possible solution for the above contrast between stripping and negative-contrast, consistent with a PF-deletion approach, would be to retain the constituent negation analysis for the latter construction (Depiante 2000) (see example (50)).

However, the assumption that in negative-contrast we have constituent negation seems problematic. Etxepare (in progress) shows that in Spanish when a strong quantifier is combined with a preposition, negation must be outside the PP.

(79)a. No a todos le(s) gusta el vino.  
 not to everybody CL likes the wine  
 ‘Not everybody likes wine.’

- b. \*A no todos le(s)gusta gusta el vino  
to not everybody CL likes the wine

In contrast weak quantifiers do not pose the same problem; both (80a) and (80b) are acceptable.

- (80)a. No a poca/mucha gente le gusta el vino.  
not to few/many people CL likes the wine  
'Not many people like wine.'

- b. A no poca/mucha gente le gusta el vino.  
to not few/much people CL likes the wine  
'Not many people like wine.'

(Etxepare in progress: (3))

Furthermore, negation in Neg-PP sequences licenses negative polarity whereas PP-NEG does not.

- (81)a. No a todo dios/much gente le regalan nada  
not to everyone/many people cl offer anything

- b. \*A no poca/mucha gente le regalan nada.  
to not few/many people cl offer anything

(Etxepare in progress: (4))

Furthermore the sequence can be broken up by sentence adverbs.

- (82) No por lo visto/afortunadamente a todo el mundo le gusta el mal vino  
neg apparently/ fortunately to everybody CL pleases the bad wine  
'Apparently/Fortunately not everyone likes bad wine.'

(Etxepare in progress: (5a))

According to Etxepare, the aforementioned characteristics suggest that the sequence Neg PP does not correspond to any constituent but their adjacency effect must be thought as association with focus. The above conclusion can easily be applied to negative-contrast, in which negation always precedes any preposition, as in (83).

- (83) El vino rojo gusta a ANTONIO Y SUSANA, no a todos.  
 The wine likes to Antonio and Susana, not to all  
 'It is Antonio and Susana who like red wine, not all.'

Furthermore, McCawley (1991) shows that in English, in examples similar to (78) *not* can have wide scope. I will leave for further research why this possible contrast may occur. Therefore, PolP is also present in negative-contrast and the revised structure of (48) is given in (84).



### 6.4.3 Double negation

It was seen in previous chapters that evidence in favour of the idea supported in this thesis, that negative-contrast and stripping should be differentiated, comes from the fact that the former accepts negation in the first clause whereas the latter does not. The relevant examples are presented in (85) and (86).

- (85) I didn't visit ROME, not PARIS. [negative-contrast]
- (86) \*I didn't visit **Rome**, but not **Paris**. [stripping]

In (85) it is possible to have the reading *the city I didn't visit was Rome*, but this reading cannot be obtained in (86).

This characteristic of negative-contrast has been used as an argument that the fragment in negative-contrast does not arise from ellipsis, since well-known cases of ellipsis do not exhibit these characteristics (Gallego 2004).

However, I would like to argue that the specific property of negative-contrast is a result of specific properties of contrastive focus.

Jackendoff (1972) denotes focus as the information of the sentence that is assumed by the speaker not to be shared by him and the hearer. Presupposition is the part of the sentence that is assumed by the speaker to constitute given information shared by him and the hearer.

(87) Paul studies **philosophy**.

In (87), the shared knowledge between the speaker and the hearer, i.e. the presupposition is that ‘Paul studies something’ and the focus of the sentence, i.e. the new information being conveyed, is what Paul studies is *philosophy*. The focused expression functions as an alternative of a set of other alternatives that could have taken the place of the focus, in (87) other objects. The assertion of a sentence claims that the focused expression constitutes a proper subset of the set of alternatives. For (87) then the presupposition and the assertion would be as in (88).

(88) Presupposition: Paul studies x  
Assertion x=philosophy

Jackendoff argues that when negation is associated with focus the assertion is negated. Therefore, in (89), where *not* is associated with the focused PP, the presupposition and assertion will be as (89a) and (89b).

(89) Paul doesn’t study **philosophy**.

- a. Presupposition: Paul studies x
- b. Assertion:  $x \notin \text{philosophy}$

However, in the case of contrastive focus, the negation is not associated with the assertion but instead it alters the presupposition; in (90) where *philosophy* is contrastively focused, the presupposition and assertion are as shown in (90a) and (90b) respectively.

(90) Paul doesn’t study **PHILOSOPHY**.

- a. Presupposition: Paul doesn’t study x
- b. Assertion: x=philosophy

Since negative-contrast involves contrastive focus, we expect that the negation would be in the presupposition part; it thus follows that in the antecedent clause, negation is not involved in the focused part.

(91) Paul doesn’t study philosophy, not literature.

We can see that the same results obtain from it-cleft (which also involves contrastive focus) where it is more evident that negation is part of the presupposition.

(92) It is philosophy that Paul doesn't study (not literature).

If this approach is correct, then the double negation that is characteristic of negative-contrast is only apparent; since the focused part of the antecedent clause is not negated, then negation in the second part of the clause is still possible, as shown in (91). Observe that the same possibility is available for the cleft construction in (92), as shown in (93).

(93) It isn't literature that Paul doesn't study.

Therefore, the aforementioned property of negative-contrast cannot really be used as an argument against the deletion analysis proposed in this chapter.

## 6.5 *Summary*

In this chapter, I have tried to show that the distinction between stripping and negative-contrast on the basis of the different type of focus must be encoded in the syntactic structure. Based on the feature-driven approach to focus and on earlier proposals for multiple focus projections (Benincà and Poletto 2004) it was argued that the remnant in stripping ends up in SpecF<sub>2</sub>P, a functional projection in the C-domain, situated lower than Rizzi's original focus projection, F<sub>1</sub>P which it is associated with a contrastive interpretation. On the other hand, the remnant in negative-contrast merges with F<sub>1</sub>P, and is thus assigned the additional contrastive reading. It was further argued that the negative particle in both constructions is a focusing adverb merged in SpecPolP, a functional projection which hosts polarity constituents and whose head Pol<sup>o</sup> must select a FP for its complement. The differences between negative-contrast and stripping regarding negation do not result from the fact that the former involves constituent negation but rather from the different type of focus.

## Chapter 7: Conclusions

In this dissertation I offered a cross-linguistic investigation of three elliptical predicate constructions, stripping, negative-contrast, and yes/no ellipsis and I showed that all three constructions must be distinguished as autonomous elliptical constructions with respect to the Information Structure status of the remnant. More specifically, in contrast with previous approaches I showed that stripping must be distinguished from negative-contrast, a distinction neglected in the ellipsis literature, and that contra to standard assumptions yes/no ellipsis cannot be considered parallel to English VP ellipsis.

More specifically, from the Information Structure side, I presented ample evidence that the remnant in yes/no ellipsis functions as a contrastive topic and not as a focused constituent, as previously suggested. The fact that the remnant is topicalised and not focused provides a straightforward explanation for the fact that the negation follows the remnant; since the remnant is topicalised it must be outside the scope of the negation. On the other hand, stripping and negative-contrast are both constrained by focus, but their difference lies on a more fine-grained distinction regarding the type of focus. I argued that stripping involves narrow focus whereas negative-contrast involves contrastive focus. Semantically, this difference between the two types of focus is associated with the set of alternatives; narrow focus involves contrast by exclusion of additional alternatives whereas contrastive focus involves contrast that induces exclusion by substitution. It was shown that this difference between the two types of focus provides a straightforward explanation for the fact that in some environments, the two elliptical constructions are not interchangeable.

From a syntactic point of view, I provided evidence that all three constructions exhibit syntactic constraints that can only follow from a syntactic approach to ellipsis, i.e. an approach that assumes a full syntactic structure for the elided material. Following Chomsky's (1995) Minimalist approach, I argued for a PF-deletion approach to BAE, according to which the remnant moves overtly for Information Structure requirements from an IP-internal position to the left periphery of the clause and subsequently the IP is deleted. Deletion is taken to be non pronunciation of the relevant structure at the level of PF. This movement and deletion approach accounts for the sensitivity of all three constructions under investigation to island constraints, binding effects and case requirements. These characteristics were unaccounted for in previous approaches to BAE which either assumed that BAE is coordination of XPs (McCawley 1988, Reinhart 1991) or which took the elided material to be

a base-generated empty pronoun that gets interpreted through general mechanisms of interpreting empty pronouns (López 1999, 2000).

Based on a feature-driven approach to focus and topicalisation (Rizzi 1997), I proposed that in yes/no ellipsis, the remnant starts as the thematic object of the verb and from that position it moves to a left peripheral position, SpecTopP, situated above IP, via the process of Clitic Left Dislocation. It was shown that this movement is obligatory in order for the topicalised remnant to have a contrastive interpretation. Furthermore I argued that contrastive topicalisation of the remnant forces narrow focus on the negative polarity marker which occupies SpecPolP. For stripping and negative-contrast, it was argued that the remnant also starts from an IP-internal position and moves to the left periphery of the clause through the process of Focus movement. I presented evidence that showed that previous approaches on the constructions which considered the negative marker to be merged with the remnant failed to capture certain characteristics of the constructions, such as the ability of the negative marker to c-command the matrix IP. Substantial evidence was presented that both constructions involve sentential negation. I also argued that the semantic difference between stripping and negative-contrast is straightforwardly captured at the syntactic level. Based on previous proposals for multiple focus projections (Benincà and Poletto 2004), I showed that the remnant in stripping ends up in SpecF<sub>2</sub>P, a functional projection in the C-domain, situated lower than Rizzi's (1997) original focus projection, F<sub>1</sub>P which it is associated with a contrastive interpretation. On the other hand, the remnant in negative-contrast merges with F<sub>1</sub>P, and is thus assigned the additional contrastive reading. The negative particle in both constructions is a focusing adverb merged in SpecPolP, a functional projection which hosts polarity constituents and whose head Pol<sup>0</sup> must select a FP for its complement.

### ***7.1 Limitations of the present study and future research***

In a nutshell this thesis offered a detailed investigation of the three elliptical constructions providing crucial new evidence that showed that these constructions must be considered as autonomous and that the syntactic constraints that they exhibit can only be successfully captured under the PF-deletion approach. An interesting observation that surfaced from the investigation of the elliptical constructions in Romance and Greek is that Italian, in contrast to Spanish and Greek uses a different negative marker for stripping and yes/no ellipsis. Another important observation was noted regarding Finnish, where stripping



**allows** the subject to be dropped but negative-contrast does not. Due to time limitations, these **issues** were not taken up in this thesis, but they are the starting point for future research.

Finally another important issue that, as it stands, presents a problem for the analysis proposed in this thesis is the fact that in certain circumstances the proposed IP deletion is **obligatory**, since the full syntactic structure would be ungrammatical and would not arise in **the first place**. Although a formal solution to this problem was not proposed, the observation made in this thesis that this obligatory deletion depends on the quantificational status of the **remnant** constitutes a possible line for future research.

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